

# Abstracts By Day and Time

Click the Participants button to find your name.

Click below under the day for the time you want to See.

WEDNESDAY	THURSDAY	FRIDAY
7:30 & 9:00	7:30 & 9:00	7:30 & 9:00
a.m.	<u>a.m.</u>	a.m.
10:00 a.m.	10:00 a.m.	10:00 a.m.
11:00 a.m.	11:00 a.m.	11:00 a.m.
1:00 p.m.	1:00 p.m.	
2:00 p.m.	2:00 p.m.	
3:00 p.m.	3:00 p.m.	
4:00 & 5:30 p.m.	4:00 p.m.	



## Acknowledgements

The "Spirit of MSERA" that keeps this organization alive and healthy is due to the continued dedication of its members. To you, the members of MSERA, your willingness to conduct research, write proposals and papers, travel to the annual meeting, give of yourself and your resources, a debt of thanks is given.

A number of members have extended themselves to assume roles of leadership and hard work that makes MSERA the highly successful organization that it is. Their contributions are significant to the continuing success of our organization.

At the heart of this program is our program chair, Malenna Sumrall, from The University of Alabama at Birmingham, Alabama. Malenna had the impossible task of putting the whole program together. This year, she put into place the electronic submission process, a great success, helped move MSERA forward, and saved a lot of trees. Most of you took advantage of the electronic process instead of the usual paper submission process. Coordinating reviews of proposals, assigning papers to sessions, making room assignments, getting presiders, and producing a program for the annual meeting are among the herculean task she has performed. On behalf of MSERA, thanks Malenna for planning our Annual Meeting in Bowling Green.

For the past two years, Robert Calvery, from Flippin School District in Arkansas, has served as Secretary/Treasurer. Keeping track of all the membership files with people moving, changing phone numbers, addresses, and e-mails is a thankless task. Being in charge of registration for two years is a big job for anyone. A simple thank you is not enough.

Tony Norman of Western Kentucky University has been the MSERA representative responsible for coordinating the arrangements for the Annual Meeting in Bowling Green and the University Plaza Hotel. He is our host, and his efforts are greatly appreciated.

Jerry Mathews, Membership Committee Chair, from Auburn University made great efforts to recruit new members both last year and this year. Carol Mullen, now of the University of South Florida, Graduate Student Advisory chair, worked diligently to bring a number of interesting offerings for the graduate students at the Annual Meeting. To both of these individuals, our sincere thanks.

For the past number of years, Qaisar Sultana of Eastern Kentucky University



has chaired the Evaluation Committee. She and her committee have collected data that has affected the direction and policy of MSERA. Our eternal thanks for her selfless efforts in this important task.

Our editors of our publications, Jim McLean and Alan Kaufman of Research in the Schools, Lynn Howerton and Nola Christenberry of the Researcher, David Morse of the MSERA Web, and John Petry of the Proceedings, are to be commended for their efforts to keep the lifeline of communications in MSERA at the highest quality.

For the past few years, I have followed Gerald Halpin of Auburn University, in a succession of jobs in MSERA. Trying to fill his shoes has been the toughest job I have ever attempted. His example and counsel have enabled me to serve you more effectively these past few years. I thank him for his support and friendship.

Behind the leaders of this organization and the committee chairs is a vast number of you who have served on committees and given of your time and energy. Thank you for your continued willingness to serve.

Clifford A. Hofwolt Vanderbilt University MSERA President, 2000



## ASERA Officers, Directors, & Executive Secretary

#### **OFFICERS**

Cliff Hofwolt--President Vanderbilt University

Gerald Halpin--Past-President **Auburn University** 

Jim Flaitz, President-Elect University of Louisiana at Lafayette

Robert Calvery--Secretary/Treasurer Flippin (AR) School District

#### **DIRECTORS**

Michelle Jarrell (AL) University of Alabama at Tuscaloosa

Nola Christenberry (AR) Arkansas State University

Deborah Abell (KY) Morehead State University

Otis Lovette (LA) Northeast Louisiana University

Linda Cornelius (MS) Mississippi State University

Ernie Rakow (TN) The University of Memphis Arlene Amos (LEA) Choctaw (MS) County Schools

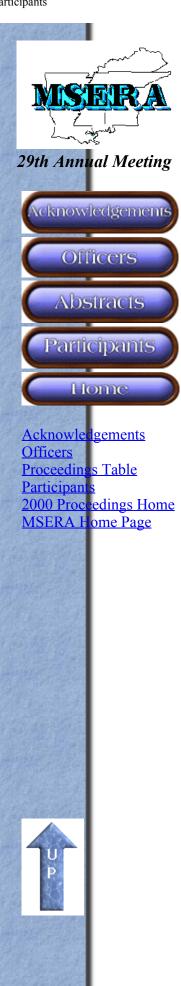
Beverly Klecker (SEA) Kentucky State Department of Education

Gahan Bailey (At Large) University of South Alabama

Scott Bauer (At Large) University of New Orleans

Kathy Franklin (At Large) University of Arkansas-Little Rock

Linda Morse (At Large) Mississippi State University



## Index of Participants

PARTICIPANT	DAY, TIME, ROOM
Abell, Deborah J.	T, 3:00 p.m., Meeting Room 2
Abrams, Gloria J.	T, 2:00 p.m., Salon B
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Achilles, Charles M.	W, 11:00 a.m., Salon B
Adams, James M.	W, 4:00 p.m., Meeting Room 2
Addison, Candace	W, 9:00 a.m., Salon B
Al-Khatab, M.	F, 9:00 a.m., Salon A
Al-Khatab, Anisa	F, 11:00 a.m., Salon A
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Amos, Arlene	W, 10:00 a.m., Meeting Room 1
Andero, Abraham	T, 10:00 a.m., Salon A
Ares, Nancy	T, 3:00 p.m., Salon B
Ariratana, Wallapha	W, 3:00 p.m., Meeting Room 2
Ashley, Patricia	T, 1:00 p.m., Meeting Room 1
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Atkins, Kathleen R.	W, 2:00 p.m., Meeting Room 1
Bailey, Gahan	T, 4:00 p.m., Meeting Room 4
Bailey, Yardley S.	T, 11:00 a.m., Meeting Room 1
Baloglu, Mustafa	W, 3:00 p.m., Meeting Room 4
Barnette, J. Jackson	W, 10:00 a.m., Meeting Room 2
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Barrett, Bettie Wiggins	T, 11:00 a.m., Meeting Room 2
Bauer, Scott C.	W, 11:00 a.m., Meeting Room 5
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	F, 10:00 a.m., Salon A
Bauer, John F.	W, 2:00 p.m., Meeting Room 1
Bibler, Thomas E.	W, 1:00 p.m., Salon B
Blendinger, Jack	W, 3:00 p.m., Meeting Room 2
	T, 10:00 a.m., Salon A
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Brake, Nicholas L.	W, 11:00 a.m., Salon B
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Brower, Jane	W, 9:00 a.m., Meeting Room 1

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Byer, John L.	T, 2:00 p.m., Salon B	
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Capraro, Robert M.	T, 2:00 p.m., Meeting Room 2	
Casteel, Carolyn P.	T, 11:00 a.m., Meeting Room 4	
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Chesser, Jo S.	W, 3:00 p.m., Salon A	
Childs, Kristen	W, 1:00 p.m., Salon B	
Cho, Gyu-Pan	W, 9:00 a.m., Salon B	
Christenberry, Nola	W, 9:00 a.m., Salon A	
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Clawson, Kenneth	W, 10:00 a.m., Salon A	
Coats, Linda	W, 11:00 a.m., Salon A	
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Cornelious, Linda	W, 2:00 p.m., Salon A	
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Crites, Steven A.	W, 2:00 p.m., Salon B	
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Cummins, Cheryl J.	W, 4:00 p.m., Meeting Room 1	
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Daniel, Larry G.	W, 4:00 p.m., Meeting Room 2	
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DeVaney, Tom W.	T, 2:00 p.m., Salon B
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Fitch, Trey J.	W, 10:00 a.m., Salon B
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Frazer, Linda H.	W, 11:00 a.m., Salon A
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Freeland, Jennifer T.	T, 10:00 a.m., Salon A
Fults, Regina S.	F, 9:00 a.m., Salon A
Gardiner, Diana	T, 11:00 a.m., Meeting Room 2
Gary, Todd	W, 9:00 a.m., Meeting Room 2
Gee, Jerry Brooksher	W, 11:00 a.m., Meeting Room 2
Gerber, Susan	W, 11:00 a.m., Salon B

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Guarino, Anthony J.	W, 2:00 p.m., Salon B
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Harris, Sandra M.	F, 11:00 a.m., Meeting Room 2
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Hensley, Beth H.	T, 9:00 a.m., Meeting Room 5
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Hildreth, Debra	T, 11:00 a.m., Meeting Room 1	
Holmes, Julie A.	F, 11:00 a.m., Meeting Room 2	
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Horn, Robert A.	W, 1:00 p.m., Salon A	
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Hulley, Kathy	W, 1:00 p.m., Meeting Room 2	
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Knowlton, Heather M.	T, 9:00 a.m., Salon A
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Kull, Keith	T, 4:00 p.m., Meeting Room 4
Kunkel, Richard C.	W, 4:00 p.m., Meeting Room 5
Lacey, Candace H.	W, 10:00 a.m., Salon A
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Lowry, Patricia	T, 1:00 p.m., Meeting Room 2
Luster, Jane Nell	T, 10:00 a.m., Meeting Room 1
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Mallette, Geraldine	W, 10:00 a.m., Meeting Room 1
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Marshak, John J.	T, 3:00 p.m., Salon A
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Masini, Douglas E.	W, 1:00 p.m., Salon A
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Mayfield, Laureen G.	F, 9:00 a.m., Salon B
McCollin, Evelyn D.	W, 10:00 a.m., Salon A
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McGrath, Vincent	W, 3:00 p.m., Meeting Room 2
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Morse, Linda W.	W, 10:00 a.m., Meeting Room 1
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Mullen, Carol A.	W, 4:00 p.m., Meeting Room 5
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Naylor, David L.	W, 2:00 p.m., Meeting Room 1

Nelson, J. Gordon	W, 4:00 p.m., Salon B
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Norman, Antony D.	W, 1:00 p.m., Meeting Room 2
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Onwuegbuzie, Anthony J.	W, 9:00 a.m., Meeting Room 2
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Pascoe, Donna E.	W, 4:00 p.m., Meeting Room 1
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Petry, John R.	F, 10:00 a.m., Meeting Room 5
Polleys, Mary Sue	W, 3:00 p.m., Salon A

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Pugh, Ava F.	W, 4:00 p.m., Salon A
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	F, 10:00 a.m., Meeting Room 4
Richardson, Bobbie K.	W, 11:00 a.m., Meeting Room 4
Richardson, Gloria D.	T, 2:00 p.m., Salon B
Riddle, Diane	W, 1:00 p.m., Salon B
Riley, Jack	W, 9:00 a.m., Meeting Room 1
Riley, John F.	T, 9:00 a.m., Meeting Room 1
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Risner, Gregory	T, 1:00 p.m., Meeting Room 2
Roberson, Terry	W, 9:00 a.m., Meeting Room 1
Roberts, J. Kyle	T, 9:00 a.m., Meeting Room 2
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Robinson, Jacquelyn	W, 2:00 p.m., Salon B
Robinson-Horne, Jacquelyn P.	W, 2:00 p.m., Salon B
Ross, Joe	T, 3:00 p.m., Salon B
Roth, Rod	W, 3:00 p.m., Meeting Room 1
	T, 11:00 a.m., Meeting Room 1
	F, 10:00 a.m., Meeting Room 1
Saleh, Amany	W, 10:00 a.m., Salon A
	T, 11:00 a.m., Salon A
Sawyer, Dianne	W, 2:00 p.m., Meeting Room 1
Schneider, Tim	T, 10:00 a.m., Salon B
Schultz, Barry	W, 1:00 p.m., Meeting Room 1
Shaw, Edward	T, 4:00 p.m., Meeting Room 4

W, 2:00 p.m., Meeting Room 2
W, 1:00 p.m., Meeting Room 1
W, 3:00 p.m., Salon B
T, 1:00 p.m., Salon A
W, 10:00 a.m., Meeting Room 1
W, 4:00 p.m., Salon A
T, 10:00 a.m., Salon A
T, 2:00 p.m., Meeting Room 4
W, 9:00 a.m., Salon B
F, 10:00 a.m., Salon B
W, 4:00 p.m., Salon A
T, 1:00 p.m., Meeting Room 1
T, 10:00 a.m., Salon B
F, 10:00 a.m., Meeting Room 1
T, 2:00 p.m., Meeting Room 2
W, 9:00 a.m., Meeting Room 2
T, 2:00 p.m., Meeting Room 4
W, 1:00 p.m., Salon B
W, 11:00 a.m., Meeting Room 1
W, 4:00 p.m., Salon B
F, 9:00 a.m., Meeting Room 1
F, 10:00 a.m., Meeting Room 4
W, 11:00 a.m., Salon A
W, 4:00 p.m., Salon B
T, 2:00 p.m., Meeting Room 4
W, 3:00 p.m., Meeting Room 5
W, 11:00 a.m., Salon B
W, 10:00 a.m., Meeting Room 1
T, 4:00 p.m., Salon B
T, 10:00 a.m., Meeting Room 2
T, 2:00 p.m., Meeting Room 2
W, 1:00 p.m., Salon B
T, 2:00 p.m., Meeting Room 1
T, 4:00 p.m., Salon A
W, 3:00 p.m., Salon A
W, 9:00 a.m., Salon B
T, 11:00 a.m., Salon A
T, 10:00 a.m., Meeting Room 1
T, 10:00 a.m., Salon A
W, 1:00 p.m., Meeting Room 1

Trent, John Mark	W, 9:00 a.m., Salon A
Vinzant, Rebecca	T, 10:00 a.m., Salon A
Warren-Kring, Bonnie	W, 1:00 p.m., Salon B
Watts, Graham F.	T, 3:00 p.m., Salon A
Watts, Ivan E.	T, 9:00 a.m., Salon B
Watts, Rebecca S.	T, 2:00 p.m., Salon B
Webb, Brenda	T, 1:00 p.m., Meeting Room 2
Webb, Linda	F, 9:00 a.m., Meeting Room 1
Weems, Gail H.	W, 10:00 a.m., Meeting Room 2
	T, 9:00 a.m., Meeting Room 5
	T, 2:00 p.m., Meeting Room 1
	F, 10:00 a.m., Meeting Room 2
Weiss, Renee E.	T, 9:00 a.m., Salon A
Wells, Lauren Rabb	T, 10:00 a.m., Salon A
West, Russell F.	W, 10:00 a.m., Salon A
	T, 11:00 a.m., Salon A
Wetter, Robert	W, 3:00 p.m., Salon B
-	W, 4:00 p.m., Salon B
White, Barbara L.	T, 9:00 a.m., Salon B
White, Bonita C.	W, 11:00 a.m., Meeting Room 1
	W, 4:00 p.m., Salon A
White, Evelyn M.	W, 9:00 a.m., Meeting Room 2
-	W, 1:00 p.m., Salon A
Whiting, Melissa	W, 10:00 a.m., Salon B
Whorton, James E.	W, 2:00 p.m., Meeting Room 1
Williams, J. Fred	W, 2:00 p.m., Salon B
Wilson, Elizabeth K.	F, 10:00 a.m., Meeting Room 4
Wilson, Joe W.	T, 10:00 a.m., Salon B
Wilson, Vicki A.	W, 9:00 a.m., Meeting Room 2
	T, 9:00 a.m., Salon A
	T, 2:00 p.m., Salon A
	T, 4:00 p.m., Meeting Room 4
Witcher, Ann E.	W, 11:00 a.m., Meeting Room 4
Witte, James E.	W, 4:00 p.m., Meeting Room 5
Woller, Michele H.	W, 10:00 a.m., Salon A
Wood, R. Dean	T, 3:00 p.m., Salon A
Woods, Bradford	W, 9:00 a.m., Salon B
Wooten, Amy M.	T, 1:00 p.m., Salon A
Wright, Vivian H.	T, 11:00 a.m., Meeting Room 1
	T, 11:00 a.m., Meeting Room 1
	T, 2:00 p.m., Meeting Room 4



	F, 10:00 a.m., Meeting Room 4
Zabilka, Ivan L.	W, 11:00 a.m., Salon A
Zheng, Binyao	F, 9:00 a.m., Meeting Room 1
Zuelke, Dennis C.	W, 3:00 p.m., Salon A
	W, 4:00 p.m., Salon
	В



#### PROCEEDINGS OF THE

#### TWENTY-NINTH ANNUAL MEETING

### **OF THE** MID-SOUTH EDUCATIONAL RESEARCH **ASSOCIATION**

CONTAINING THE ABSTRACTS OF DISCUSSION SESSIONS, DISPLAY SESSIONS, SYMPOSIA, AND TRAINING SESSIONS

JOHN R. PETRY, EDITOR LORRAINE ALLEN, ASSISTANT EDITOR **ELIZABETH WELCH, ASSISTANT EDITOR** 

**NOVEMBER 15-17, 2000** 

**BOWLING GREEN, KENTUCKY** 



## Wednesday, November 15, 2000

#### 7:30 & 9:00 A.A

7:30-8:45 a.m. NEW MEMBER/GRADUATE STUDENT BREAKFAST Salon C

9:00-9:50 a.m. CHARACTER EDUCATION (Discussion Session) Salon A

Presider: Nola Christenberry, Arkansas State University

#### TEACHING EFFECTIVE HABITS DESIGNED FOR YOUTH IN THE UNITED STATES TO YOUTH IN RUSSIA

Byra L. Ramsey, Arkansas Tech University

Much has been written about the components that should be included in designing appropriate curriculum for teaching character, values and ethics in public schools. Critics claim that to teach character in schools would unfairly impose particular values or personality traits on students. Character is the sum of intellectual and moral habits, good and bad. All cultures recognize the importance for children to become part of their society. Each culture teaches habits that will help to maintain their philosophies. The Seven Habits of Highly Effective Teens (Covey, 1998), designed for youth in the United States, was taught to 40 youth in Russia. Data collected from questionnaires, drawings, and group discussions were analyzed to provide information on the feasibility of designing effective habits for one culture that could be adapted and taught across cultures.

Through paradigms built from movies and news clips, youth in Russia attempted to emulate the dress and behavior of youth in the United States. Even so, concepts presented in The Seven Habits of Highly Effective Teens (Covey, 1998) were not always applicable to their lives. Adaptation of the seven habits was achieved as the youth wrote stories based on the seven habits as they related to life in Russia.

The results of this study provided an understanding of 40 Russian youth and how they perceived The Seven Habits of Highly Effective Teens (Covey, 1998). The findings suggested the development of a curriculum for teaching effective habits across cultures.

#### ABSTINENCE EDUCATION: WHAT INSTRUCTIONAL PROCESS IS WORKING FOR THE STUDENTS?

Gerald Halpin, Glennelle Halpin, Jennifer Good, and Susanne MacGuire, Auburn University

Because teenagers are having sex more frequently and at younger ages, the abstinence-only movement has gained recent national popularity. Certainly, the value of abstinence programs can best be assessed by analyzing specific outcomes that affect society such as rates of teen pregnancy, abortions, and sexually transmitted diseases. With the introduction of multiple programs, however, another important evaluation component is a consideration of instructional strategies and processes that work most effectively for the teenagers actually engaged in the programs. The purpose of this study was to explore the abstinence instructional processes used commonly in order to suggest the most effective methods for program implementation. Specifically, do the

length of the program, kinds of activities within the program, content, and teaching methods affect the students' willingness to receive the abstinence-only message?

Supported by a five-year grant, over 20 abstinence-only education programs have been initiated throughout the state. At the completion of a yearly intervention cycle, the various program administrators have submitted process evaluation information ranging from participant ratings of the intervention to specific participant feedback. The reports from nine of these projects, representing different geographic areas, demographic variations, and targeted populations, have been analyzed and summarized to discern commonalities in reported strengths of the instructional processes. Results from these analyses completed to identify patterns of strengths and weaknesses as described by the participants were reported.

This study has important educational implications, particularly regarding programs intended to reduce risky behaviors among adolescents. If consistency in teens' opinions regarding programming can occur, then educational leaders could provide programs that most notably match the instructional needs and interests of adolescents. Thus, it is important to understand what educational process components in a youth-risk program teenagers are most open to accepting and to identify those in which they are willing to participate.

#### IMPACT OF ABSTINENCE-ONLY EDUCATION ON SELF-EFFICACY

John Mark Trent, Glennelle Halpin, and Gerald Halpin, Auburn University

Adolescent pregnancy rates are higher in the United States than in any other industrialized nation. Further, teens are contracting sexually transmitted diseases at an alarming rate. Add other psychological, social, and emotional effects of teen sexual activity and the health risk becomes blatantly obvious. To combat these problems, Congress authorized in 1996 \$250 million for abstinence-only education grants. In a project funded by one of these grants, seventh- and ninth-grade students were taught by classroom teachers lessons from a modified Sex Respect curriculum (seventh grade) and Abstinence Only: Send a Clear Message (ninth grade). Before and after participation in the abstinence-only programs, the seventh- and ninth-grade participants responded to items on the youth survey designed specifically to assess their intention to remain sexually abstinent and their abstinence-specific self-efficacy. The self-rated likelihood of remaining sexually abstinent until marriage was significantly higher after program participation. The moderating effect of abstinence-specific self-efficacy on this change in intention to remain sexually abstinent was discussed as were the impact of the programmatic interventions on the abstinence-specific self-efficacy of both the seventh-grade and ninth-grade participants. Implications for theory and practice were presented.

9:00-9:50 a.m. STUDENT MOTIVATION (Symposium) Salon B

Organizer: Jenefer Husman, The University of Alabama

Discussant: Bradford Woods, The University of Alabama

MOTIVATION AND SELF-REGULATION IN THE REAL WORLD: APPLYING MOTIVATIONAL AND SELF-REGULATION THEORY TO SCHOOL

Jenefer Husman, Heather Tennyson, Stacy Light, Gyu-Pan Cho, Stacy Smith, Candace Addison, and Bradford Woods, The University of Alabama

#### Overview

Research in self-regulation and motivation has blossomed in the last 10 years. Taken together this body of research has much to tell educators, administrators, and parents of school-age children. This set of papers provided an extensive review of the literature on human motivation and self-regulation in order to provide the audience with a better understanding of the ways that this rich literature base can be used to improve both teaching and parenting practices. The authors of the following papers discussed ways in which educators and parents could consider using motivational and self-regulation theory in their daily practice.

#### The Connection Between Character Education and Delay of Graduation

Heather L. Tennyson, The University of Alabama

This paper reviewed research that has examined character education programs. The purpose of this review was to expose the need for a research program that focused on the possible connection between self-regulation literature and character education, specifically the possible link between delay-of-gratification and character education.

#### A Theoretical Analysis of Teachers' Classroom Successes

Stacy S. Light and Stacy D. Smith, The University of Alabama

The purpose of this paper was to investigate specific interactions in the classroom and reveal how personal interactions and teacher attentiveness to particular opportunities for instruction in self-regulation techniques could help lead the class to greater levels of accomplishment both in the areas of academics and self-development.

#### The Effect of Teacher Self-Efficacy and Self-Determination on Student Motivation

Gyu-Pan Cho, The University of Alabama

This paper reviewed the studies that have shown that self-efficacy and self-determination affect teacher motivation. This presentation demonstrated that a preponderance of the evidence has supported the contention that teachers who have high self-efficacy positively affect student motivation and academic outcomes. Administrative activities that support teacher efficacy and autonomy were also reviewed.

#### How Do Parenting Practices Impact Their Children's Self-Regulation: A Review of the Literature

Stacy D. Smith, The University of Alabama

The primary aim of this paper was to provide a review of the literature on parenting styles and attachment in relation to self-regulated learning from infancy through the late adolescence. This presentation included a review of the research on parent-child interaction and the implications of those interactions on self-regulation in infancy, childhood, and adolescence.

#### Familial Influences on Child Self-Regulation and Social School Success

Candace J. Addison, The University of Alabama

The gdathis review paper was to demonstrate that research in both devel opmental psychology and academic self-regulation has shown that the relationship and interactions with the primary care giver(s) are the greatest influences on children's ability to self-regulate. This review centered on specific aspects of the impact these interactions could have on the child's ability to self-regulate, transition into school, and self-perception. Specific recommendations based on the review were made.

**Discussant:** Bradford Woods, The University of Alabama, served as discussant for the session and provided guidelines for integrating motivational theory into classroom practice. Following the brief discussion a five- to ten-minute period for audience questions and discussion was provided.

9:00-9:50 a.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Jane Brower, The University of Tennessee at Chattanooga

#### THE IMPACT OF PROFESSIONAL DEVELOPMENT SCHOOLS ON TEACHER EDUCATION

Janice H. Patterson, The University of Alabama at Birmingham

This study reviewed the literature on professional development schools and their impact on teacher education in two ways: (1) the preparation of preservice teachers, and (2) the professional development of practicing teachers. As the number of professional development schools (PDS) has grown, the literature related to their impact on colleges of teacher education and their graduates has also grown. In an ERIC search conducted in spring 2000, there were 536 relevant abstracts of journal articles and documents. This represented an increase of 266 from that reported in 1996. The literature about PDS is unique in that much has been published in nontraditional venues, such as electronic resources, audiovisual material, newsletters, unfinished project descriptions, reports, proposals and evaluations, and other documents usually termed "internal." The difficulty in retrieving these documents and the spurt of growth in PDS literature made this a particularly productive time to examine outcomes.

Results indicated that preservice teachers, educated in PDS environments, are immersed in schools, and are more confident in their knowledge of pedagogy and subject matter than their traditionally educated peers. Those educated in urban environments are more sensitive to ethnic/linguistic diversity and are more likely to select a teaching position in an urban school than those trained in non-PDS environments.

Professional development for inservice teachers in PDS differs from traditional staff development in important ways. PDS partnerships report collaboration in the development and teaching of the college curriculum and the supervision of preservice teachers. Professional development in PDS increases the capacity of classroom teachers to actively participate in the change process required for schools and colleges of teacher education in renewal. The findings of this review suggested implications for preservice teacher education and staff development for teachers.

TWO DIMENSIONS OF PROFESSIONAL PARTNERSHIPS: A CROSS-CULTURAL

#### FRAMEWORK

Francis M Boakari, Universidade Federal do Piaui; Jeffrey Gorrell, Auburn University; and Huey-Ling Lin, Alabama State University

Teacher education reform has embraced partnerships between public schools and schools of education as sine qua non for better professional development. However, creating meaningful, lasting, and balanced partnerships requires sensitivity to different cultural values, assumptions, and practices associated with each place. Conceptions of partnership reflect historical experiences and social values that may work well in one setting but less well in another. In all cases, however, there are considerations about structure, growth, values, and interpersonal relations that determine how one partnership develops and whether it flourishes over time. The researchers proposed a two-dimensional model (Personal-Institutional and Functional-Educational) of professional partnerships between universities and schools, based on cross-cultural and trans-national experiences.

The Personal-Institutional dimension describes the differences between partnerships that grow out of personal urges to connect with colleagues and those that are negotiated across institutions. Personal relationships bring creative energy to the process of communicating and developing positive partnerships that can produce growth for individuals and institutions. Institutional approaches to partnerships, based on signed formal agreements can provide the stability, the structure, and the resources to sustain the partnerships through the years. The Functional-Educational dimension contrasts goal-oriented and learning-oriented relationships. Functional relationships, by centering on accomplishing specific goals, can concentrate effort and resources efficiently, but they tend to represent a dominant-dominated perspective. Educational relationships, on the other hand, presuming an equality of voice and perspective, work toward long-term cultural encounters from which everyone learns.

This model of partnerships takes into account the interaction of both dimensions of relationships and provides a means of understanding a partnership's potential strengths and weaknesses. Emerging partnerships can use this model to determine which kind of partnership they want to build, shape their perspectives to incorporate successful elements from each end of the two dimensions, and overcome problems associated with each approach.

#### DEVELOPMENT OF A PROGRAM FOR TEACHER LEADERS

Beth H. Counce, Anne Hamilton, Jack Riley, and Terry Roberson, University of Montevallo

This study was based upon the research involved in and the development of a new, innovative advanced degree program in teacher leadership for teachers from all grade levels and all content areas. Research indicated that as schools have become larger and school demands have increased, teachers have been placed in various leadership roles. While there are many preservice and inservice programs for teachers, research indicated that there are few programs that provide the needed training for the new leadership roles teachers are assuming. According to the research, schools that involved teachers in various leadership roles had teachers who were more satisfied with their jobs and students who showed an increase in their learning. Therefore, this situation resulted in school improvement.

Following a review of the research related to current trends in advanced teacher preparation and a program review of the graduate-level programs at a small university, a draft of a proposal for a new interdisciplinary, P-12 grade level program in teacher leadership was developed. Discussions related to the rationale and to the design of the

program were held with various advisory councils on campus, with currently enrolled graduate students, and with selected teachers. A presentation and a discussion concerning the proposal for the new Teacher Leader program were conducted with a group of instructional leaders from several school systems from a small geographic area and with faculty members from the College of Education of a small university. The instructional leaders provided suggestions for program design and then wrote letters of support for the new Teacher Leader program.

Following approval of the new Teacher Leader program by the College of Education and the State Department of Education, information about the program was disseminated to several school systems, and the first cohort group of teachers was admitted.

Program and course evaluations were given to the teachers participating in the Teacher Leader program to determine program effectiveness. A typical course evaluation and an open-ended evaluation related to the course and to the program were completed by each participating teacher. The results indicated that the teachers felt they had gained a considerable amount of knowledge and that they would be able to use the knowledge to help improve their schools. A meeting to obtain additional feedback for program improvement was held with all teachers and faculty participating in the Teacher Leader program. Results indicated teacher satisfaction, and only a few suggestions were given.

9:00-9:50 a.m. RESEARCH/STATISTICS (Discussion Session) Meeting Room 2

Presider: William Spencer, Auburn University

STATISTICS ANXIETY: NATURE, ETIOLOGY, ANTECEDENTS, EFFECTS, AND TREATMENTS: A COMPREHENSIVE REVIEW OF THE LITERATURE

Anthony J. Onwuegbuzie, Valdosta State University, and Vicki A. Wilson, Wilmington College

Most college students are required to enroll in statistics and quantitative research methodology courses as a necessary part of their degree programs. Unfortunately, many students consider taking statistics and research methodology courses to be a negative experience. Moreover, many students report high levels of anxiety while enrolled in these classes. This form of anxiety has been termed statistics anxiety. For many students, statistics/research methods courses typically are the most anxiety-inducing in students' programs of study (Zeidner, 1991). Indeed, because of statistics anxiety, students often delay enrolling in these courses for as long as possible.

Although statistics has been taught formally throughout much of the 20th century, few studies existed pertaining to statistics anxiety prior to the last decade. This was probably because statistics anxiety was deemed to be synonymous with mathematics anxiety, for which there has been a plethora of studies. Despite the development of the first measure of statistics anxiety in 1985 (i.e., Statistics Anxiety Rating Scale; Cruise, Cash, & Bolton, 1985), research on this construct remained scant for the next few years. However, recent years have seen an increase in the number of articles on statistics anxiety appearing in the literature, as researchers have recognized that statistics anxiety is a multidimensionality construct that is distinct from mathematics anxiety and that it has debilitative effects on academic performance.

The purpose of this presentation was to provide a comprehensive summary of the literature on statistics anxiety. In particular, the nature, etiology, and prevalence of statistics anxiety were described. Additionally, the antecedents (i.e., dispositional, situational, and environmental) of statistics anxiety were identified, as well as its effects on student outcomes (e.g., statistics achievement). Further, the existing measures of

statistics anxiety were documented. Finally, based on the literature, an array of successful interventions for reducing statistics anxiety was described.

## REACHING THE DECISION-MAKING AUDIENCE: MAKING EDUCATIONAL RESEARCH UNDERSTANDABLE

Dee Elaine Muesse, University of North Texas and Bethlehem Area School District

As educational research moves out of the ivy-covered corridors of the university campus, it faces a different audience with an different agenda. Decision makers in the school board rooms across America concern themselves with providing the best possible education for America's children, while meeting the obligation to the community taxpayers in a financially efficient manner. This seems to be a forgotten point in educational research. Spending time searching through journals of education, researchers report findings that are statistically significant. Going to a presentation of a textbook company, as they sell their wares to textbook committees, they speak of how their book produced statistically significant gains in achievement. The school board purchases the product in hopes that achievement test scores will soar; yet, never were they told of the amount of improvement they might expect. In statistical terms this is called effect size; in the real world it might be referred to as the amount of "bang for the buck." The responsibility of educational researchers is to educate the decision makers at the local level to importance of effect size when a relationship proves to be statistically significant. The researcher must remember that instituting a new curriculum program is very expensive. The goal of this paper was to provide educational researchers with the tools to making their finding more understandable to the decision makers.

## CHANGING TEACHING PRACTICES BY EMPOWERING TEACHERS WITH RESEARCH KNOWLEDGE

Evelyn M White and Todd Gary, Tennessee State University

According to the National Science Education Standards, "Teachers require the opportunity to study and engage in research on science teaching and learning, and to share with colleagues what they have learned." To accomplish this goal, a model has been designed, tested, and analyzed to improve science teaching and student learning in the elementary classroom. This model centers on empowering classroom teachers enrolled in a graduate course with knowledge of the research literature in order to improve their ability to teach science and to bring the worlds of research and practice closer together.

This presentation described the model, its implementation in a doctoral level course, "Advanced Science in the Elementary School (EDCI 683)," and the model's impact on subsequent classroom teaching and student learning. The analysis included the work of 12 K-6 grade teachers enrolled in the course, videotapes of their classroom presentations, classroom observations, improvements in student work over time, inclass observations of the teachers, and follow-up interviews with them.

Outside researchers from Lesley College have evaluated, for the National Science Foundation, a local systemic change science education project in which these teachers have leadership roles. These researchers have observed the teaching practices of these teachers before and after taking this course. Their findings supported our results and suggested that once the teachers see a connection between the research world and their classroom, research becomes a practical and valuable part of their teaching and changes are introduced into their classrooms that improve student learning in science.



#### 9:00-9:50 a.m. PROFESSIONAL DEVELOPMENT

(Training Session) Meeting Room 5

#### COLLABORATING WITH PARAEDUCATORS FROM A DISTANCE

Margaret M. Cramer, Western Kentucky University

Although phenomenal growth has occurred in the utilization of paraeducators in inclusive classrooms in recent years, few educators or administrators have been trained to supervise them. A review of the literature indicated a need for additional research to identify actual tasks assigned to paraeducators. Often, teachers are given the responsibility of determining what tasks will be assigned to paraeducators but are not aware of the actual tasks performed.

Information obtained during a pilot study conducted by the presenter assisted with the identification of objectives for the training modules presented in the session. The data collection instrument developed for use during the pilot study was modified for inclusion in Module III, Roles and Responsibilities. Tasks performed by paraeducators were categorized into competency levels: Level I, teacher aide; Level II, instructional assistant; Level III, assistant teacher.

Participants: (1) completed two training modules developed to assist educators and administrators with supervision of paraeducators face-to-face or from a distance, (2) learned how to supervise paraeducators via the internet, and (3) developed a job description for paraeducators.

Participants completed Module III.A.1. - Roles and Responsibilities and Module III.A.2 - Task Assignments. Each module contains a case study, work sheet, checklist, and implementation plan.

After completion of the training modules, participants developed an interest in obtaining further training on paraeducator supervision. By sharing this information in their own school systems, participants will encourage personnel to provide collaborative training sessions addressing supervisory responsibilities.



## Thursday, November 16, 2000

#### :30 & 9:00 A.M

7:30-8:45 a.m. NEW MEMBER/GRADUATE STUDENT BREAKFAST Salon C

9:00-9:50 a.m. HIGHER EDUCATION (Discussion Session) Salon A

Presider: Vicki Wilson, Wilmington College

WEB-BASED LEARNING: THE EFFECTIVENESS OF LEARNER ACHIEVEMENT AND FACULTY TIME DEMANDS

Steven G. Lesh, Southwest Baptist University, and Lary Rampp, RidgeCrest Learning

The first purpose was to compare the pre- and post-course achievement scores in a web-based college course when directly compared to an identical lecture based course. The second purpose was to compare the time expenditure by the instructor to develop and deliver the learning experiences in both courses.

Technological enhancements over the past decade have increased the feasibility and practicality of delivering learning at a distance. Successful outcomes have been identified in the literature-related to the learners reaction to and achievement in webbased learning environments. Few scholarly investigations exist documenting the impact on faculty time involvement to produce these courses. Little evidence is provided making a clear delineation of the actual time investment for an instructor to develop and deliver a web-based course when compared to a more traditional lecturebased model of instruction.

The investigative methodology consisted of two self-selected courses with a pretest and posttest design. Instructor time was cataloged from the onset of the design of the courses to the completion of each course. Matched pairs t-tests were utilized to determine significant differences in pre- and posttest scores.

Significant data were observed demonstrating enhanced learning of the content for both courses with no significant differences between the achievement levels of the two courses. Regarding the faculty time investment to develop, deliver, and complete each course, it was found that the instructor spent 10 clock hours more to complete the lecture-based version of the course (73.75 clock hours) when compared to the webbased version of the course (63.17 clock hours) during the same academic semester.

Future research is needed identifying the characteristics of the learners' self selecting web-based education, time demands of faculty in preparing web-based learning experiences, and instructional design elements that lead to positive learning outcomes.

#### STATISTICS: ON CAMPUS VS. ON-LINE

Robert L. Kennedy, University of Arkansas, Little Rock (UALR)

The study compared electronic mail, traditional, and combination approaches for teaching graduate introductory statistics classes. Approaches presented in the literature recently might be loosely categorized as content/conceptual, use of manipulatives, or use of computer software. The electronic course that was the focus of this study was offered in the 1995-1999 fall terms. There were 23 participants in the electronic classes, 69 in the traditional classes, and 27 in both groups, with a majority of white females. Multiple-choice pretests and posttests were given. An analysis of covariance (ANCOVA) was run using posttest scores as the response variable and pretest scores as the covariate. The ANCOVA technique involves features of both the analysis of variance and regression, so assumptions for both were tested. Random selection was not possible since participation in any version of the course was optional. Normality and homoscedasticity across all groups were verified using the Omnibus Normality of Residuals and Modified-Levene Equal-Variance tests. Homogeneity of regression was observed in scatterplots of pretest scores versus posttest scores and their trend lines, by treatment and control groups. Therefore, the assumptions required for ANCOVA seemed to be reasonably well met. The test indicated that the null hypothesis of no statistically significant difference among the traditional (adjusted mean of 6.82, n=69), electronic (adjusted mean of 7.00, n=23), and both traditional and electronic (adjusted mean of 7.01, n=27) classes' scores could not be rejected at the 0.05 level [F(2,115)=0.08, p=0.92], with an effect size of f=0, a negligible effect, according to Cohen. It is concluded, then, that offering the course through electronic mail or a combination of electronic mail and the traditional approach did not appear to hinder the performance of the students to the extent measured by the multiple-choice tests.

### FACULTY ATTITUDES AND UNDERSTANDINGS ABOUT ONLINE LEARNING TECHNOLOGIES

Renee E. Weiss, The University of Memphis, and Dave S. Knowlton and Heather M. Knowlton, Crichton College

Educational futurists agree that online education will proliferate. The question is no longer if faculty will use online technologies in their teaching; the question is how online technologies will impact higher education pedagogy. Given the prominence of online technologies, faculty members must understand "best practices" of online teaching. For example, faculty should use online technologies: (1) to allow multiple perspectives to be heard, (2) to create an environment where students can asynchronously and efficiently interact with course materials and classmates, (3) to appeal to multiple learning styles, thus improving the potential for student learning, (4) to help students develop skills in critical thinking, and (5) to train students for a rapidly-changing informational environment.

The success of a faculty member's ability to use online technology in these theoretically sound ways is based on their preconceived ideas. Therefore, future faculty development activities should consider faculty understandings and attitudes. The purpose of this exploratory case study was to use hermeneutic, co-constructed interpretation of faculty perceptions about online learning to develop a stronger model of faculty development.

Analysis was based on data collected in our roles as faculty development specialists and included informal interviews with faculty and administration, one-on-one consulting with faculty members who are designing online courses, and workshop and seminar evaluations from faculty. Findings indicated that many faculty members see the need for the inclusion of online technology, but they do not understand the pedagogical shift necessary for making online classrooms successful. Other faculty members are concerned that the use of online technologies will undermine their own authority and expertise.

9:00-9:50 a.m. SCHOOL VIOLENCE (Discussion Session) Salon B

#### Presider: Beverly Klecker, Kentucky Department of Education

## DEVELOPMENT OF A MEASURE OF TEACHERS' ATTITUDES TOWARD SCHOOL VIOLENCE

Barbara L. White, University of Southern Mississippi, and Larry G. Daniel, University of North Florida

The purposes of the present study were: (1) to devise and provide validity and reliability data for scores on an instrument measuring teachers' attitudes toward school violence and (2) to develop "importance" ratings of the items based on data from teachers in a high school that had experienced a highly publicized violent episode. Two independent samples were utilized. Based on factor analytic manipulation of data from Sample 1 (N = 370 education graduate students), four factors were extracted representing meaningful subscales: (1) causes of school violence, (2) responses to school violence, (3) profile of the violent student, and (4) extent of violence. Reliability coefficients for scores on the four subscales ranged from .69 to .90. Based on data from Sample 2 (N = 38 teachers), item scores were analyzed to determine which items within the four subscales were rated as most highly important by the participants. Specifically, mean item scores in either the "agree" or the "strongly agree" range for the 38 participants were utilized to designate primary concerns.

Based on this importance threshold, the perceived primary causes of school violence were centered about individual student responsibility, lack of respect for life, decline in moral values, and influence of drugs, television, and radio. Regarding responses to violence, participants were most favorable toward items related to conflict management strategies. In their ratings of items on the profile of the violent student subscale, participants noted that factors related to the inability to control anger, low self esteem, desensitized attitude toward violence, and disregard for human life were characteristic of violent students. Finally, as regards the extent of violence, the sample rated almost all of the items of this type high, including items related to: (1) perceived increase of violence in schools, the media, and society, and (2) the perception that violence is more highly publicized than in times past.

## STRUCTURAL VIOLENCE: A THEORETICAL FRAMEWORK FOR UNDERSTANDING VIOLENCE AMONG AFRICAN AMERICAN UNDERCLASS YOUTH

Ivan E Watts, Auburn University

The pur of this essay was to explicate and evaluate some of the current issue surroung violence, with a special emphasis on violence committed by African American erclass Youth (AAUY). It was also to contribute to American educational tory in general, but more specifically, the growing body of knowledge on Arf Americ an youth violence. The researcher utilized the conceptual framework of Johan Galtung's structural violence as a method of analyzing youth violence among African Americans. Galtung refers to the type of violence where there is an actor who commits the violence as personal or direct, and to violence where there is no such actor as structural or indirect (Galtung, 1969). In the first case, the violence can be traced to a particular person; in the second case, tracking the source of violence is more covaluded. In this situation there may not be any person who directly harms another, yet the violence is built into the structure and shows up as unequal power and consequently as unequal life chances (Galtung, 1969). Once Galtung's theory has been explicated, the researcher gave an example of structural violence by utilizing Frantz Fanon, Paulo Freire, and Ania Loomba's theory of colonization to further explain violence committed by young African Americans.

Some descriptive statistics on crimes committed by African Americans were given to help illustrate the point that colonization is a form of structural violence. The paper was concluded by proposing that we begin to reexamine the structures that African Americans and the poor interact, in which we begin to and address and analyze the structures and conditions that these people live in, subsequently, focusing on bad structures instead of incorrigible youth.

#### SCHOOL VIOLENCE: A SURVEY SINCE LITTLETON

Jean Newman Clark and Alvah E. Clark, Jr., University of South Alabama

The study is a small national survey of school violence in the past two years as reported by school counselors. Categories in the anonymous survey include nine acts of violence and three categories of possession related to school violence. Other areas addressed include: (1) presence of a crisis management plan or team, (2) feedback related to any changes or reactions particularly following the events in Littleton, Colorado, (3) assessment of sense of danger among faculty, school, and community, and (4) issues related to school violence.

The survey was mailed to a sample of 500 counselors across the United States, two weeks after the shootings in Littleton, Colorado. The number sent to each state was in proportion to the number of school districts per state. A representative number of elementary, middle, and high school counselors were surveyed. Half of the surveys were sent to the principal, with a cover letter requesting that the principal ask the counselor to complete the survey. The other half were sent directly to the school counselors.

Forty-six of the surveys were returned marked "undeliverable." Of the subsequent 454 surveys, 172 (38%) responses were returned. Because there was no tracking, no second mailings, and no other follow-up (to maintain anonymity), these responses were considered usable. Categorical analysis by gender, state, and level were performed to examine trends.

Chi-square analysis showed that there was significance in possession of arms, crisis planning, and increase in apprehension among students and faculty. The data were discussed, along with a survey of interventions and strategies that had been developed and implemented in the past two years. A review of literature offered a sense of perspective related to future trends.

9:00-9:50 a.m. EARLY CHILDHOOD (Discussion Session) Meeting Room 1

Presider: Jack Klotz, The University of Southern Mississippi

COLLABORATIVE PLANNING AND DECISION MAKING IN THE ELEMENTARY SCHOOL: A QUALITATIVE STUDY OF CONTEMPORARY TEAM TEACHING

John F. Riley, The University of Montevallo

This study is the second phase of a longitudinal case study of collaborative planning and decision making in a grade-level team of elementary teachers. The purpose of this phase of the study was to examine the evolution of the planning and decision-making processes of an elementary grade-level team during planning meetings and the perceptions of team members regarding the process and their role in it.

Nine elementary teachers in a suburban school district in the Mid-South participated in this study. Three were first-year teachers, and the others ranged in

experience from one to six years. One teacher was African American, the others were Caucasian. Six of the nine teachers on the team were in their first or second year of membership on this team.

The researcher observed the teachers during their regular team planning meetings, which were Monday afternoons after school for curriculum planning and Wednesday mornings during the students' physical education period for team business. The team captain conducted both of these meetings.

During these meetings, the researcher compiled field notes on discussion topics and actions toward consensus and decision making. The researcher also interviewed team members with regard to their perceptions of team teaching in general, the functioning of this team in particular, their role in shared decision making, and their perceptions of the evolving roles of team members due to changes in personnel. Teachers on this team participated in interviews of prospective teachers for the team, and they also responded to questions regarding their participation in this process. These data provided a rich source for analysis. Preliminary findings indicated a clear perception that induction for beginning teachers is strengthened through this type of teaming. Relatively inexperienced teachers seemed to modify their perceptions of their roles as teachers and team members and attributed this change to their participation in teaming.

## HEAD START TEACHERS' CHARACTERISTICS AND ATTITUDES AS PREDICTORS OF THEIR CURRICULAR FOCUS

Huey-Ling F. Lin, Alabama State University, and Jeffrey Gorrell, Auburn University

This study was designed to examine key relationships among Head Start teachers' perceptions of children's readiness for school, class and classroom organization and resources, self-reported instructional activities, curricular focus and evaluation methods, and the preparation/qualifications of Head Start teachers.

The National Center for Educational Statistics questionnaires for kindergarten teachers were adapted for distribution to Head Start teachers (N = 361) who are employed by center-based programs of Head Start grantees in seven counties in South-Central Alabama. In this study, a combination of statistical analyses (exploratory factor analysis, general linear model and correlational analysis) was used for comparing a broad range of cases, and variables were used to answer the following questions: (1) What are the current practices and curricular focus in these Head Start settings? (2) To what extent do Head Start teachers' perceptions about readiness influence their instructional approaches? and (3) To what extent do Head Start teachers with different characteristics (gender, age, ethnicity, teaching experience, educational level, college courses taken, and type of teaching certification) differ in their conceptions about readiness and in their instructional practices?

By answering these questions, the study led to the presentation of a testable model of interrelationships among important variables and recommendations for the design of Head Start teacher education programs. Also, the results of this study can be used to develop a particular set of instructional knowledge components for Head Start teachers, enabling schools and colleges of education to address early childhood teacher education for Head Start teachers.

9:00-9:50 a.m. STATISTICS (Discussion Session) Meeting Room 2

Presider: Randy Parker, Louisiana Tech University

## SACRIFICING RELIABILITY AND EXALTING SAMPLING ERROR AT THE ALTAR OF PARSIMONY: SOME CAUTIONS CONCERNING SHORT FORM TEST DEVELOPMENT

Robin K. Henson, University of North Texas

The principle of parsimony is a time-honored tradition in science. The principle holds that, given two seemingly equally valid explanations for a phenomenon, the most straightforward or simple explanation is most likely replicable in future events. In research, the goal of parsimony often manifests itself in researcher's attempts to explain the most (e.g., perhaps the most variance between two sets of variables) with the fewest number of variables (e.g., perhaps the fewest predictors).

Test development is directly impacted by parsimony issues. Often, test developers begin with large sets of possible items and then narrow the items through a variety of procedures, most commonly factor and reliability analyses. Such efforts are driven by the need for tests to be short enough to be manageable while retaining appropriate psychometric properties. However, item elimination often comes at the price of reduced score reliability because the number of items on a test impacts classical reliability estimates. Furthermore, when factor analyses are conducted on non-normative samples, the obtained factor structure may be unique to the current sample due to capitalization on sampling error. If items are subsequently deleted because of this sample dependent factor structure, the test developer may be sacrificing score reliability and what may otherwise be a good test item.

The purpose of the paper was to highlight some cautions when seeking to develop short-form versions of tests. Several points were made: (1) score reliability is, among other things, directly impacted by the characteristics of the sample and testing conditions, (2) sampling error directly influences reliability and factor structure of scores, and (3) caution should be used when developing short forms of tests when using non-normative samples. To make the discussion concrete, real-world data were used to illustrate the sample dependency of factor structure and score reliability.

## SELF-EFFICACY TEACHING AND KNOWLEDGE INSTRUMENT FOR SCIENCE TEACHERS (SETAKIST): A PROPOSAL FOR A NEW EFFICACY INSTRUMENT

#### J. Kyle Roberts, Baylor College of Medicine

Albert Bandura (1977a, 1997) presented self-efficacy as a mechanism of behavioral change and self-regulation in his social cognitive theory. Bandura proposed that efficacy beliefs were powerful predictors of behavior because they were ultimately self-referent in nature and directed toward specific tasks. The predictive power of efficacy beliefs has been borne out in the research (Bandura, 1997; Pajares, 1996; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

To further the study of teacher efficacy, Gibson and Dembo (1984) developed the Teacher Efficacy Scale (TES) to two efficacy constructs that they defined as personal teaching efficacy and outcome expectancy. The TES was the first attempt to develop an empirical data collection instrument to tap into this potentially powerful variable in teachers.

Later, Riggs and Enochs (1990) developed the Science Teaching Efficacy Belief Instrument (STEBI). Based on the TES, the STEBI also consisted of two dimensions, called personal science teaching efficacy (PTSE) and science teaching outcome expectancy (STOE).

Recently, however, the outcome expectancy dimension of teacher efficacy (general teaching efficacy in the TES; STOE in the STEBI) has come into question. In particular, Tschannen-Moran et al. (1998) have argued that this dimension is a measure of external locus of control, as opposed to outcome expectancy. Several researchers

support this conclusion (Henson & Vacca-Haase, in press; Guskey & Passaro, 1994; Coladarci & Fink, 1995).

This paper introduced a new self-efficacy instrument with confirmatory factor analysis results from 300+ teachers. Building from previous research on the STEBI (Roberts, Henson, Tharp, & Moreno, in press) the new instrument (SETAKIST) hypothesizes that science-teacher self-efficacy exists in two constructs: (1) teaching efficacy and (2) pedagogical content knowledge efficacy. The second factor in this instrument is argued from and based largely on the work of Lee Shulman (1986; 1987; 1999).

#### A FACTOR ANALYSIS OF THE TEACHER DISCIPLINE EFFICACY SCALE

Rebecca McMahon, University of South Alabama, and Richard Kazelskis and Carolyn Reeves-Kazelskis, University of Southern Mississippi

The Teacher Discipline Efficacy Scale (TDES) was designed to measure personal and general teacher efficacy for disciplining students. A confirmatory factor analysis of the two- factor model was carried out using a sample of 205 junior- and senior-level preservice teacher education students. Goodness-of-fit measures did not suggest a good fit for the two factor model. The resulting chi-square based on 34 degrees of freedom was 181.62 (p<.001), the ratio of chi-square to degrees of freedom was high (5.34), and the root mean square error of approximation was also high (0.140).

Because the proposed two-factor model did not provide satisfactory fit, the item responses were subjected to an exploratory factor analysis. A principal components analysis was used. The scree test and the eigenvalue greater than 1.0 criterion suggested two to four factors. Two, three, and four factor solutions were rotated using both orthogonal and oblique rotations. Based on factor interpretations and simple structure considerations, the two-factor oblique solution was deemed the most appropriate. The resulting factors were labeled self efficacy and external influences.

9:00-10:50 a.m. PROFESSIONAL DEVELOPMENT (Training Session) Meeting Room 5

SO, YOU WANT A JOB IN ACADEMIA?: USEFUL QUESTIONS, INFORMATION, AND SKILLS FOR "THE SEARCH"

Beth H. Hensley and Sherri Horner, The University of Memphis; Sean Forbes, Auburn University; Anthony J. Onwuegbuzie, Valdosta State University; and Gail H. Weems, Southern Illinois University, Carbondale

Many graduate students and new graduates of doctoral programs have found themselves unprepared for the next step of their journey - finding a fulfilling academic position. Although the university or college setting looked familiar, the new role of job seeker frequently offered choices that were unexpected, confusing, frustrating, and, at times, immobilizing. The five panelists were recent academic job-seekers who examined relevant literature and their own experiences to facilitate a discussion of questions, information, and skills that could produce a successful outcome for others in the academic job search process.

The training session began with attendees having the opportunity to briefly share where they are in the job search process and a major concern or question they



would like addressed during the training session. A master list of participant issues was developed for reference and use throughout the training session. Each panelist presented an overview of one of the five major topics.

The five major topic areas were: (1) the curriculum vita, (2) identifying potential positions, (3) the application materials, (4) the interview process, and (5) assessment and follow-up. As each of the five topics was initially presented, all of the panelists had an opportunity to contribute relevant experiences and insights.

Panelists shared various models of curriculum vitaes and discussed tailoring the vita to the position. Topics related to identifying potential positions included electronic bulletin boards, networking, and professional publications and organizations. Copies of current positions in the MSERA employment book were shared with each participant along with an analysis of what the wording of a job ad or posting can tell a job-seeker. Various models of cover letters were reviewed, and there was a discussion of selecting references and how to obtain letters of reference that can make a difference.

The area of interviewing included preparing for telephone and face-to-face interviews, typical questions that will be asked, and questions the interviewee should ask. Mock interviews were conducted to demonstrate valuable techniques and common problems. The topic of evaluation included: (1) assessing one's own performance and qualifications, (2) assessing the position including one's potential colleagues, administration, physical setting, and professional opportunities, and (3) follow-up negotiations if an appointment is offered.

The training session concluded with the participants breaking into five small group sessions led by one of the panelists for more specific discussion of the topic areas. With consent, a master list of participant names, addresses, telephone numbers, and email addresses was shared with each attendee for ongoing support and networking.



## Friday, November 17, 2000

#### 7:30 & 9:00 A.M.

7:30-8:45 a.m. PAST PRESIDENTS' BREAKFAST Salon C

9:00-9:50 a.m. COUNSELING (Discussion Session) Salon A

Presider: Julie Holmes, Louisiana Tech University/Lincoln Parish (LA) Schools

#### ECLECTIC TREATMENTS FOR CHILD AND ADOLESCENT MOOD DISORDERS

Jennifer L. Marshall, Berea College, and Trey J. Fitch, Morehead State University

The paper addressed theories of child and adolescent mood disorders of depression and anxiety, practical issues of how to present eclectic treatments to deal with these mood disorders to counseling students, and relevant research dealing with child and adolescent mood disorders.

The objectives of this presentation were to discuss child and adolescent mood disorders (depression and anxiety) and outline multiple treatment options that counselor educators can present to students. Child and adolescent depression and anxiety are barriers to learning and psychosocial development. Counselor educators need a variety of treatment options when addressing these disorders, especially with new counselors. This presentation outlined child and adolescent mood disorders and provides cognitive, behavioral, and affective intervention strategies.

#### COUNSELING STUDENTS WITH LEARNED HELPLESSNESS: AN EMERGING NEED

Anisa M. Al-Khatab, Eastern Kentucky University

Learned helplessness is a powerful belief that can undermine and inhibit an individual's effort to achieve learning. In fact, learned helplessness, as research indicates, places students in a state of mind that prevents them from exerting the effort to make a difference in their own learning (Woolfolk, 1995). The state of helplessness requires interventions beyond the classroom teacher's roles and teaching strategies.

Counselors' roles and functions have changed as a result of the shifts in focus of school counseling. Responding to changes in social, economic, and political conditions, school counseling has moved from focusing on vocational guidance (pre-1950's) to enhancing individual developmental guidance and counseling programs (1970's-present) (Keys, Bemak, & Lokhart, 1998). Also in the 1970's, the scope of behavioral assessment expanded to include cognitive and self-control techniques (Ollendick and King, 1999).

The study focused on learned helplessness as a behavioral-cognitive and emotional situation that requires school counselors to assist teachers and students to overcome. The study examined major theoretical explanations and significant contributing factors to the development of learned helplessness. The state of helplessness was explained in light of three strands of theories: (1) attribution theory and the significance of the locus of control, (2) achievement-motivation theory, and (3) self-efficacy theory and the effect of its sources of information. The study also examined the expanded roles and functions of school counselors and delineated the roles and functions that counselors can assume to enable students to combat learned

helplessness and to take positive steps toward making a difference in their own learning.

#### DUAL RELATIONSHIPS IN SUPERVISION: A COMFORTABLE THRESHOLD

Regina S. Fults and Katherine Dooley, Mississippi State University

Dual relationships in supervision are becoming more prevalent in mental health professions. Previous literature indicates that although these relationships are prohibited in most professional organizations, they are still highly prevalent. This study explored the attitudes and comfort levels of persons in training (supervisees) regarding specific behaviors exhibited by supervisors.

Approximately 130 master's and doctoral-level students in mental health fields participated in the study. Participants were administered a questionnaire designed to identify comfort levels in three specific areas: (1) social attitudes and behaviors, (2) physical touch, and (3) sexual attitudes and behaviors. Descriptive statistics was used to analyze the data.

The results indicated that some behaviors leading to devastating boundary and ethical violations were found very acceptable by the participants. Social relationships consisting of having dinners, lunches, and receiving gifts from supervisors were given very high comfort ratings. Similarly, physical touch behaviors, such as being hugged by their supervisor, were also given very high comfort ratings.

There are many ethical guidelines and standards of conduct that strictly prohibit dual relationships in supervision. However, sometimes those relationships are unavoidable. This study indicated that an increased focus should be given to examine boundary violations in order to prevent dual relations. Implications for training and research were discussed.

9:00-9:50 a.m. RESEARCH/STATISTICS (Discussion Session) Salon B

Presider: Jim Flaitz, University of Louisiana at Lafayette

THE EFFECTS OF STRUCTURED ONE-ON-ONE TUTORING IN SIGHT WORD RECOGNITION OF FIRST-GRADE STUDENTS AT-RISK FOR READING FAILURE

Laureen G. Mayfield, Lincoln (LA) Parish Schools

The purpose of this study was to determine the effects of an alternative reading program on the performance of at-risk first graders. Sixty first graders from three north Louisiana public elementary schools with high poverty rates, who were determined by their teachers and principals to be functioning in the bottom 20-30% of first-grade reading students, were purposefully selected. Students were pretested on three subtests of the Woodcock Reading Mastery Test-Revised (WRMT-R), Form G, and randomly assigned to either a control or an experimental group. Experimental group students received 15 minutes per day of tutoring by America Reads Volunteers in the Edmark Reading Program, a highly structured sight word program; control group students were read aloud to for 15 minutes each day by the same volunteers.

At the completion of the first semester of the school year, the 60 participants were tested on four subtests of the WRMT-R, Form H (Letter Identification, Word Identification, Word Attack, Passage Comprehension) and were asked to read aloud the 150 words taught in the treatment program. Qualitative data were also collected in the

form of student, parent, teacher, and administrator interviews, observation, and examination of documents. Quantitative data were analyzed with four ANCOVAs and one ANOVA; stepwise multiple regression was used to determine covariates for each subtest. Qualitative data were examined using content analysis.

Results indicated a significant difference in the performance of experimental group students on the WRMT-R Passage Comprehension subtest and Edmark posttest. Qualitative data indicated that more experimental group students than control group students exhibited significantly improved reading ability, attitudes toward reading, attitudes toward school, and attitudes toward self. Results suggested that schools should consider the use of volunteers to implement one-on-one tutoring in the Edmark Reading Program to teach a supplementary sight word vocabulary to at-risk first graders.

#### AVOIDING DECISION-MAKING BY CHANCE: PROTECTING EFFECT SIZE ESTIMATES

J. Jackson Barnette, University of Iowa, and James E. McLean, The University of Alabama at Birmingham

Cohen's popular book titled *Statistical Power Analysis for the Behavioral Sciences*, coupled with recent challenges to statistical significance, has made "effect size" one of the hottest methodological topics of our time. Cohen recommends specific levels of effect size for "small," "medium," and "large" effects. However, even Cohen acknowledged that these values are relative to the specific content and method in a given research situation. The purpose of this study was to determine the probabilities of attaining varying magnitudes of standardized effect sizes by chance and when protected by a .05-level statistical test.

Monte Carlo procedures were used to generate standardized effect sizes in a one-way ANOVA situation with two through five, six, eight, and 10 groups having selected sample sizes from five to 500. Within each of the 91 number of group and sample size configurations, 100,000 replications were generated from a distribution of normal deviates. For each data set, the effect size was computed along with a statistical test of hypothesis at the .05 level. For each n/k combination, the proportion of effect sizes exceeding 0.1 to 2.0 in increments of .1 was computed for all cases and for those cases where the no difference hypothesis was rejected.

There arends that are common across all configurations. As the magnitude of ef ectze increases, the probability of getting such a difference by change decreases would be expected. Within a given number of samples situation, as sample si increases, as xpected, the probability of getting such a difference by ce decreases. Within a given sa ple size, as the number of groups increase he probability of getting such a difference by chance increases. Another fing that is consistent across all configurations is that the significance test protected effect size probability is always equal to or less than the unprotected probability, in some cases dramatically so. It is clear that the addition of the significance test reduces the probability of finding a seemingly large effect size by chance. Such a protected effect size indicator could be an answer to the arguments posed by both those who protest against the use of the significance test and those who propose its use in judging the magnitude of an observed effect.

## FACTORS INFLUENCING PARTICIPATION IN HIGHER EDUCATION: EXPLORING THE FACTOR STRUCTURE OF A QUESTIONNAIRE

Sandra M. Harris, Troy State University, Montgomery

Research has shown that attracting individuals into and graduating them from higher education has become problematic. The purpose of this study was to investigate

the factor structure of a questionnaire that gathers information on factors that influence a person to pursue higher education. The literature-based, researcher-developed Factors Influencing Participation in Higher Education (FIPHE) Questionnaire was used to reach the following objectives: (1) determine whether gender differences existed in the demographic data, (2) assess internal consistency of scales and items in the questionnaire, (3) evaluate the factor structure of the questionnaire, and (4) determine whether there were gender differences in the data gathered by the questionnaire.

Participants were 280 students enrolled at a traditional, southeastern, land-grant university during the 1998 fall quarter. Participants were recruited from a general studies psychology course and several sections of an educational psychology course. Cross-tabulation procedure revealed gender differences on nine of 33 demographic variables. Reliability analyses generated alpha coefficients that ranged from .57 to .90. A factor analysis revealed that a nine-factor solution accounted for 37% of the variance compared with 38% for the hypothesized 10 factor-solution. A multivariate analysis of variance revealed significant gender differences on 10 of 15 measures of interest. A correlation analysis revealed a number of significant correlations among the measures of interest.

Results indicated that there were gender differences in the factors that influenced participation in higher education and that there was an interactive effect between those factors. Consequently, the researcher concluded that the FIPHE Questionnaire is a construct valid instrument that educators could use to gain an understanding of what motivates individuals to pursue higher education. This information could further be used to design more effective recruitment programs for attracting individuals into higher education and more effective retention programs that could result in graduating more individuals from higher education.

9:00-9:50 a.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Naomi Coyle, Centenary College

COMPETENCY: A TEACHER EDUCATION ISSUE

Lynetta Owens and Cynthia Harper, Jacksonville State University

Quality in teacher preparation is a concern shared by professionals involved in all aspects of education. Teaching has been described as an honorable profession. It is a rewarding and exciting field that holds tremendous responsibility. No other profession shapes the lives of so many youngsters.

Because of the teacher reform movement in the United States, programs in teacher education have undergone much change, ranging from types of programs offered including curricula for nontraditional students, to the inclusion of more content course work to better prepare students for teaching in the classroom.

Colleges of education have an obligation to ensure that only well-prepared, caring and competent individuals receive education degrees. However, the desire to teach and the ability to teach are two different issues. Preparation and skill are relatively straightforward to evaluate. Difficulties arise when maturity, desire to teach, and commitment to the process, among other attitudinal characteristics are not considered. Decades of experience with prospective teacher educators indicate that failure in teacher education programs is associated more routinely with the latter than the former set of abilities. Unfortunately, these weaknesses are rarely addressed until the student has already expended considerable years and resources. Failure at the last step in a teacher preparation program is painful for everyone involved and must be avoided at all costs. Appropriate measures must be taken by teacher preparation

programs to retain the best teacher candidates.

This university provides a program that is designed to identify, remediate, and counsel those students who exhibit characteristics associated with problems in teacher education early in the education process to prevent the trauma associated with lack of professional competence.

### WHAT MIDDLE SCHOOL TEACHERS PERCEIVE TO BE ESSENTIAL ELEMENTS OF AN EFFECTIVE PRESERVICE MIDDLE SCHOOL TEACHER PROGRAM

Laura C. Stokes, University of North Alabama

This study was conducted to measure perceptions of practicing middle school teachers and administrators about what are the essential elements of an effective preservice middle school teacher program. This study has particular significance because it identifies both the knowledge-base content and the pedagogical strategies that should be included to adequately prepare middle-school teachers. This study would benefit schools of education, as well as school systems designing beginning teacher programs and inservice training.

Of specific interest are the following research questions: (1) What are the most important knowledge-base items to include in preservice middle school programs? (2) What are the most important competencies/strategies to include in preservice middle school programs? (3) What field experiences would best prepare the preservice middle school teacher?

Two faculties of middle schools in a city school system in north Alabama were surveyed. A five-point Likert scale ranging from (1) strongly agree to (5) strongly disagree was used. The instrument was developed and used to measure perceptions of middle school educators about which knowledge-base items and which strategies are essential for adequately preparing the preservice middle school teacher.

The survey was administered to the two faculties in fall 1999. Among the content items that ranked highest were knowledge of teaming and knowledge of the characteristics of middle school students. Findings showed that the strategies that respondents ranked as most essential were discipline methods and cooperative learning strategies.

### A NEW MODEL OF STUDENT TEACHER SUPERVISION: PERCEPTIONS OF SUPERVISING TEACHERS

Binyao Zheng and Linda Webb, Kennesaw State University

A large suburban university developed and implemented a model of student teacher supervision in which supervising master teachers combine the traditional roles of the cooperating teacher and the college supervisor.

The study examined supervising teachers' perceptions of the new model of student teacher supervision to determine: (1) the impact of the new model on supervision practices, (2) the role of the university student teacher coordinator, and (3) the effectiveness of the process.

A survey instrument was constructed to gather perspectives on model impact, role of university faculty, and effectiveness of the process. Teachers participating in the new student teacher supervision model completed a survey containing 31 items regarding the new model. Items were divided by topic under evaluation, and space in each section was left for comments. Sixteen of the 17 teachers participated supervising student teachers under the new model completed and returned the surveys. The responding teachers were grouped in four groups by certification/teaching field: Group

I had six teachers in early childhood education; Group II had four teachers in middle grades education (one of whom was actually a P-12 educator); Group III had three teachers in secondary education; and Group IV with three teachers in P-12 education. Additional groupings compared the seven teachers with specialized supervision training to the nine who lacked the specialized training and the seven with over 15 years teaching experience to the nine with less than 15 years experience.

Analysis was conducted on the three areas of survey questions. Responses were analyzed for each item, and an average score was obtained to demonstrate an overview. In addition, a comparison was conducted on each item comparing the four certification/teaching field groups, the two specialized training groups, and the two teaching experience groups. The findings of the research suggested implications for supervision of student teachers.

9:00-9:50 a.m. PROFESSIONAL DEVELOPMENT (Training Session) Meeting Room 5

#### HOW TO SEARCH FOR JOBS OUTSIDE THE TRADITIONAL ACADEMIC BOX

Jennifer M Good, Susanne MacGuire, and Donna Pascoe, Auburn University

The scope of this graduate training session was to provide graduate students with a method for job-searching outside of the traditional faculty placement methods connected with higher education. Often young scholars, particularly females, are constricted in their job search efforts due to family commitments. Hence, the purpose of this training session was to foster divergent thinking among graduate students in order to encourage creative methods for finding jobs in a given geographic area. Specifically, the session allowed participants to discuss networking techniques, research fellowships, jobs within industry, and opportunities with local non-profit and community organizations.

Objectives included the following: (1) participants will be able to list networking techniques and create a list of potential employees within their area, (2) participants will be able to discuss a variety of job possibilities outside of traditional faculty placements, and (3) participants will be able to plan a focused agenda for attacking a job search in a given area.

Session activities included: (1) students responded to and discussed the following prompt, "Write a brief description of what you consider to be the ideal job. Is it realistically obtainable? Why or why not?"; (2) each trainer gave a brief overview (with overheads) of different kinds of job experiences and opportunities: research fellowships, grant work, work with community organizations and clinics, and jobs in industry; (3) participants will write a list of their academic and research strengths; they then wrote a parallel list of how these strengths could be adapted to fit different, non-traditional settings; (4) participants were given a flow-chart on which they will write the names of potential networking contacts and why these individuals are helpful; methods for approaching these individuals were discussed; (5) trainers presented an outline of methods and tips for finding and locating non-traditional jobs; and (6) each participant created a plan for job-searching. These plans were discussed and shared with other workshop participants.



# Wednesday, November 15, 2000

10:00-10:50 a.m. HIGHER EDUCATION (Discussion Session) Salon A

Presider: Kenneth Clawson, Eastern Kentucky University

DIFFERENCES IN STUDENT RATINGS OF INSTRUCTIONAL EFFECTIVENESS BASED ON THE DEMOGRAPHIC AND ACADEMIC CHARACTERISTICS OF INSTRUCTORS

Michele H. Wollert and Russell F. West, East Tennessee State University

The improvement of instructional delivery has been of paramount concern in higher education in recent years. One particular concern has been the rising number of adjunct faculty teaching courses at universities and the potential impacts on instructional programs. The purpose of this study was to examine student course evaluations of classes within the College of Education at East Tennessee State University (ETSU) and determine if there were differences in the perceived levels of instructional quality based on faculty characteristics. This information will help identify the characteristics that are most strongly associated with high ratings of instructional performance, as measured along the dimensions of attitude, methods, content, interest, and instructor characteristics. These data will allow comparisons with other institutions of higher learning.

Both undergraduate and graduate students within the College of Education are given the Student Assessment of Instruction (SAI) instrument for course evaluation. Data for the years 1992 through 1999 were used in this analysis. The five SAI subscales (attitude, methods, content, interest, and instructor) comprise the total score on the instrument. Analysis of variance and t-tests were used to identify differences on the SAI subscales based on instructor rank, department, year of administration, and semester.

Analysis of the data revealed differences on the total rating scale (F=13.49, p <.05) and on each subscale. Scheffe's post hoc multiple comparisons test indicated that those at the rank of instructor received higher ratings than full-professors on all but one of the five subscales. Adjunct faculty ratings were similar to those of full professors. There was a significant difference in ratings between the different academic departments, but no significant difference was found between fall and spring semesters. Differences in ratings may have been due to factors other than instructional delivery, which may call for further exploration.

#### FACULTY AND STUDENT PERCEPTIONS OF TEACHING STYLES: DO TEACHING STYLES DIFFER FOR TRADITIONAL AND NONTRADITIONAL STUDENTS?

Evelyn D. McCollin, The University of Southern Mississippi

The influx of adult learners in collegiate classrooms suggests the need to examine the extent to which college faculty employs adult learning principles in their classrooms. The primary purpose of this study was to determine whether there was a difference between college faculty and students' perceptions of teaching styles and the extent to which faculty employed different teaching styles for traditional and nontraditional students at The College of the Bahamas. In addition, the instructor

variables such as age, gender, nationality, years of teaching experience, work status, educational level, and type of course facilitated were examined for relationship with teaching style. Student variables such as age, gender, course taken, academic major, length of attendance, and part-time or full-time status were also investigated.

The design of the study was a self-reported survey method to elicit the responses of a faculty sample of 84 instructors and a sample of 585 students at The College of the Bahamas. The student sample consisted of 243 traditional students (under age 25) and 342 nontraditional students (25 years and over).

The findings of this study revealed a significant difference in the perceptions of teaching styles of faculty and students at The College of the Bahamas. The perceptions of teaching styles were measured by the faculty's scores on The Principles of Adult Learning Scale (PALS), and by the students' scores on The Adapted Principles of Adult Learning Scale (APALS). Regression analysis of the predictor variables indicated that 27.2% of the variance in the instructors' PALS score was explained by the instructors' educational level and type of course taught. The results also revealed that 14% of the variance in the students' APALS score was explained by the students' academic major and type of course taken.

### TEACHING STYLES: A COMPARISON STUDY OF PUBLIC AND CHURCH AFFILIATED UNIVERSITIES

Amany Saleh, Arkansas State University, and Candace Lacey, Barry University

This paper reported on the results of a study of teaching styles of university professors in one public university and a private, church-affiliated university. Teaching styles were described in terms of sensitivity and inclusion. Based on these characteristics, teachers were identified as Experts, Providers, Enablers, Facilitators or Neutral.

A demographic survey and the Van Tilburg/Heimlich teaching beliefs scale were sent, via campus mail, to faculty members in both universities. The members of the faculty were asked to anonymously complete both the demographic profile and the scale and to return them to the researchers. A total of 247 scales were collected and analyzed using descriptive statistics and t-tests.

The results demonstrated no significant differences between professors in the public and private universities. However, a large percentage of professors in both universities (46.6% in the public university and 41.8% in the private university) were identified as Enablers. In contrast, a small percentage of professors in both universities were identified as Facilitators (7.35% in the public university and 8.25% in the private university).

This study explored the characteristics of each of the teaching styles and the implications of teaching style in the public and private university classroom. It further encouraged teachers in higher education to examine their teaching styles and consider how their beliefs affect their teaching and students' learning. In-depth studies of the factors influencing teaching styles such as gender, culture, and academic fields are warranted to enhance college professors' awareness of their teaching styles.

10:00-10:50 a.m. INSTRUCTION (Discussion Session) Salon B

Presider: Trey Fitch, Morehead State University

HERE'S MY TWO CENTS WORTH: AN INSTRUCTIONAL STRATEGY THAT REALLY WORKS

Jack J Klotz, The University of Mississippi, and Melissa Whiting, The University of Southern Mississippi

This paper centered on one of the greatest frustrations faced by classroom teachers at all levels: getting students to actively participate in classroom discussions. In fact, the term itself is not reality based since most discussions are a monologue where the teacher throws out a statement or question and then expects students to effectively respond with an answer that may already be teacher-predetermined. As evidenced, for many educators, the "correct" answer often means the teacher's predetermined and/or desired response (Hunkins, 1994). Such patterns of practice, in effect, can actually impact on silencing students rather than encouraging active "risk-free" class participation by all students. Thus, many students often prefer to play it safe and remain silent and not actively participate in such discussions.

Given the preceding perspective, this paper shared a series of thoughts and observations on how one strategy had been implemented within the confines of one university's cohort student master's degree program for preparing school administrators. Indeed, the implementation of this strategy had effectively and creatively drawn all students within this instructional program into focused-dialogue situations, where students truly voiced their own, not the instructors, thoughts or convictions on selected critical issues facing instructional leaders within "real-world" settings.

This instructional strategy is both easy to implement and only requires a minimum set of rules for student engagement. This paper shared not only the derived rules for student engagement, but also how to fully infuse this strategy within any instructional arena.

### EFFECTS ON MOTIVATIONAL ORIENTATIONS AND LEARNING STRATEGIES OF THE CASE STUDY METHOD OF INSTRUCTION

Glennelle Halpin, Jennifer Good, Gerald Halpin, and Susanne MacGuire, Auburn University

An important objective in education is to combine theory with practice in a manageable manner. Because the case study method of instruction has been recognized as an instructional tool that promotes this kind of learning, educators often use case studies to teach complex course content. Can the case study method possibly have other benefits in the affective domain that has been unexplored? For instance, what are the effects of the case study method of instruction on students' motivation and learning strategies? The purpose of this study was to illustrate motivational and strategic benefits to students who have been taught with the case study method of instruction.

The Mtet Strategies for Learning Questionnaire (MSLQ), an 81-item self-report instrument designed to be class specific, was given to two groups of students taking engineering-design courses. The experimental class was taught using a case-study approach, while the comparison class was taught using a traditional lecture format. Theoretically, if motivational orientations and learning strategies used by students are context specific, varying responses to the MSLQ should occur for students in the two different courses.

The two primary parts of the MSLQ can be broken into 15 scales or constructs. Mean ratings of the comparison class exceeded those of the experimental class for three constructs: Intrinsic Goal Orientation, Extrinsic Goal Orientation, and Rehearsal. Mean ratings for the experimental class exceeded those of the comparison class on seven of the constructs: Elaboration, Organization, Critical Thinking, Metacognitive Self-Regulation, Time and Study Environment, Help Seeking, and Peer Learning. These results suggested that use of the case study format had more of an impact on students'

learning strategies than on motivational orientations. With the case study, students are provided with engaging and challenging instructional opportunities wherein they can employ the more complex and sophisticated approaches to learning.

### PEDAGOGICAL AND DELIVERY SYSTEM ISSUES ON Internet-based TEACHING AND LEARNING: HOW SHARP IS THE CUTTING-EDGE TECHNOLOGY?

Gunapala Edirisooriya, East Tennessee State University

A great deal of attention is being focused on Internet-based teaching and learning (IBTL), especially in higher education. In this regard, there are two aspects that need to be examined closely: pedagogy and course delivery. Pedagogy issues include instructional design, content, context, presentation, and authenticity. Delivery issues concern technological infrastructure at the institutional level, technology access at the learner level, technological know-how at the instructor level, and security and intellectual property rights. Therefore, research on IBTL is warranted in light of the sketchy evidence on many unanswered questions.

While many faculty members and higher education institutions experiment with Internet teaching methods, a large number of private corporations offer Internet-based course delivery systems. In the absence of standards and procedures for IBTL, trial-and-error methods seem to prevail. Accordingly, the following questions have been raised: (1) What are the appropriate instructional designs for different subject areas? and (2) What are the appropriate delivery systems for different instructional strategies?

To answer these questions, two sources of data were used: (1) a literature review and (2) a survey data matrix. This data set resulted from an electronic survey conducted in 1999 on various aspects of Internet-based course delivery systems used by higher education institutions across the United States.

The preliminary findings indicated that there was no: (1) coherent structure or framework to evaluate pedagogical benefits of IBTL, (2) clear grasp of organizational changes needed to implement a given IBTL system, (3) clear understanding of how to integrate a given IBTL delivery system(s) with IMSs within organizational structures, (4) explicit and solid pedagogical basis(s) underlying IBTL delivery system(s), (5) clear vision among policy makers on the long-term implications of IBTL delivery system(s), and (6) proper facilities and preparation to fully implement a given IBTL system(s). This paper delineated some guidelines to help educators choose IBTL delivery systems.

10:00-10:50 a.m. LEARNING (Discussion Session) Meeting Room 1

Presider: Arlene Amos, Choctaw County (MS) Department of Education

WRITING DISABILITIES: FROM DIAGNOSIS TO INTERVENTION

Eden M Abramson and Christopher H. Skinner, The University of Tennessee, Knoxville

Writing is not an isolated task; it occurs throughout children's school routines from seatwork to writing reports, and from taking tests to taking notes. In order to better combat deficits in this area, educators need to recognize the distinct characteristics of writing disabilities and the variety of beneficial interventions. However, relative to other academic skills (e.g., reading) there has been much less focus on the basic psychological processes involved in writing and writing disabilities (Berninger, Mizokawa, & Bragg, 1991).

The definition of a specific learning disability provided in Public Law 94-142 expressly mentions a relationship between learning disabilities and writing. However, without a precise diagnosis indicating areas of need, individuals with writing disabilities may not receive the appropriate remediation services to address their deficits. Overall, understanding what defines a learning disability, diagnosing a particular disability, and then implementing interventions will lead to beneficial results.

This paper reviewed current research within the area of writing and writing disabilities. Analyzed within this review were a definition and diagnosis of writing disabilities, instructional strategies that have been implemented and found effective, and the role that technology is beginning to play in intervention. In addition, directions for future research were described.

### METACOGNITION TECHNIQUES TO ENHANCE STUDENT LEARNING IN A TECHNOLOGY-BASED CLASSROOM

Lary C Rampp, RidgeCrest Learning, Inc., and Steven G. Lesh, Southwest Baptist University

In technology-based classrooms teachers are adapting their teaching methods of being more effective. Real student achievement occurs when metacognition techniques are an integrated element of the learning unit. Students can no longer be observers to the learning process happening around them in a technology-based classroom. This presentation investigated the more helpful metacognition techniques that can be artfully used by students to assist in the amount of learning occurring in a technology classroom. The objective was to illustrate the more useful metacognition techniques as used in a technology-based classroom, specifically, active listening, listening, learning styles, and critical thinking. Students must be as involved as the teacher when it comes to technology. No longer may students just sit back and be passive learners. Students must be active learners, particularly when the teacher is at a distant site or the learning is asynchronous. Specific examples of the best metacognition techniques were presented and illustrated to the participants. Also, handouts were made available.

## METACOGNITIVE PROTOCOLS: A QUALITATIVE STUDY OF PERCEPTIONS OF "SMARTNESS" OF ADULTS AND CHILDREN

Linda W. Morse, Geraldine Mallette, and Eileen Talento-Miller, Mississippi State University

Metacognition is a theoretical construct used to describe individuals' perceptions of their thinking processes and their own control over their thinking processes. Largely derived from information-processing literature, metacognition plays a large role in how information is transformed and controlled as it is being learned. Despite its popularity recently, very little is known about how to assess metacognition, and few studies are available that look at qualitative analyses of what individuals report.

The present study examined the protocols of 78 undergraduates who responded to three of the questions from the Swanson Metacognition Questionnaire, a 17-item structured, written interview questionnaire with moderate reliability. This questionnaire asks how people think and how to solve problems with the subject providing written responses with no time limit. The three questions chosen for this study were: (1) What makes someone really smart? (2) How do children figure out things, like how to do something? and (3) Is there any reason why adults are smarter than children? Why? Each protocol was independently analyzed by two researchers for major themes that

emerged.

Several distinct themes emerged. First, the most dominant themes regarding what makes someone smart were described as: (1) academic knowledge, (2) common sense or street smarts, and (3) the role of genetics. Second, the most dominant themes regarding children's intelligence were that they learn: (1) by observation, (2) through asking questions, and (3) by trial and error. For the third question, the respondents reported having more life experience and a larger knowledge base than children. Additionally, comparisons were made between responses of high GPA and low GPA subjects with few differences found. Thus, these findings supported the assumption that there are common or dominant themes that people report. This could further illuminate the metacognitive processes that people have and how they use these metacognitive processes to control information or learn new information.

10:00-10:50 a.m. STATISTICS (Discussion Session) Meeting Room 2

Presider: Gail Weems, Southern Illinois University, Carbondale

#### THE CORRECTED ETA-SQUARED COEFFICIENT: A VALUE ADDED APPROACH

J. Jackson Barnette, University of Iowa, and James E. McLean, The University of Alabama at Birmingham

Eta-squared (ES) is often used as a measure of strength of association of an effect, a measure often associated with effect size. It is also considered the proportion of total variance accounted for by an independent variable and simple to compute and interpret. However, it has one critical weakness that has been cited by several authors (Huberty, Snyder & Lawson, and Snijders), and that is a sampling bias that leads to an inflated judgment of true effect. The purpose of this research was to determine the degree of inflation by determining how large ES is likely to be by chance, finding methods of predicting the mean inflation, and then proposing the use of a corrected ES coefficient, which is the observed ES minus the mean expected ES, a value added approach.

A Monte Carlo study was set up using number of samples from 2 to 10 and sample sizes from 5 to 100 in steps of 5. In each number of samples and sample size configuration, 10,000 one-way ANOVA replications, using samples drawn from the unit normal distribution, were conducted for a total of 1,800,000 replications.

Patterns of observed ES values were examined for influences of number and size of samples. It was clear that ES was influenced by both of these factors. Trend analysis was conducted to determine equations that could be used to predict the mean chance-based ES for given number and size of samples. In a given research situation, the expected ES coefficient may be determined for comparison with the observed ES. Such an approach removes the bias cited as the major weakness of the use of eta-squared as a measure of strength of association and makes it a more useful measure of non-chance influence.

#### ARE ALL EFFECT SIZES CREATED EQUAL?

James E. McLean and Marcia R. O'Neal, The University of Alabama at Birmingham, and J. Jackson Barnette, University of Iowa

The publication of the Glass et al. book on meta-analysis created a cottage industry in effect-size computation. The recent debate over statistical significance

testing has reinforced the interest in effect size. Much of the current knowledge about effect sizes comes from the work of Cohen presented in his text on power analysis. However, the literature makes no distinctions among effect sizes based on the data metric upon which they are applied. The purpose of this study was to compare effect sizes applied to raw, scaled, and normal curve equivalent (NCE) data.

Recommendations for the interpretation of effect sizes vary. For example, some books suggest that an effect size below .50 is small, between .50 and 1.00 is moderate, and above 1.00 is large. These are products of the criterion formally used by the U.S. Department of Education's Joint Dissemination Review Panel (JDRP) and the Program Effectiveness Panel (PEP). It is clear from the context of these articles that it is assumed that they were dealing with raw scores or scaled scores, not NCEs. NCE scores for individual students and, particularly, mean NCE scores for schools would not be expected to change from year to year without some type of intervention.

This study computed gain effect sizes for the raw, scaled scores, and NCEs by school for grades 4, 6, and 8 on a national norm-referenced test for 796, 655, and 546 schools respectively. The effect sizes were compared for each type of score. The results showed that, as expected, the effect sizes for raw and scaled scores were similar while the effect sizes for NCE scores were lower. These results suggested that when rules-of-thumb for effect sizes are presented, they should take into account the type of metric upon which it is being applied.

#### EFFECT SIZES IN QUALITATIVE RESEARCH

Anthony J. Onwuegbuzie, Valdosta State University

The AFAForce recommended that researchers always report and interpret effec sizes quantitative data. However, no such recommendation was made for qualitat data. Thus, the first purpose of this paper was to provide a rationale fotilizing effe t sizes in qualitative research. Arguments were presented that-use of effect sizes in q alitative research stems from the failure to dis guish descriptive from inferential statistis. Yet, because the purposeto qualitative data analysis and descriptive statistics s to describe data stem from underlying samples without making inferences beyond t hese samples, both data analysis techniques are compatible. Moreover, use of descriptive statistics enhances the process of verstehen/hermeneutics promoted by interpretive researchers. Examples were given illustrating various applications of effect sizes. For instance, when conducting typological analyses, qualitative analysts only identify emergent themes; yet, these themes can be quantitized to ascertain the hierarchical structure of emergent themes.

The second objective was to demonstrate how effect sizes can be used to undertake confirmatory thematic analyses, wherein replication qualitative studies are conducted to assess the replicability of previous emergent themes. The final purpose was to illustrate how inferential statistics can be utilized in qualitative research. This can be accomplished by treating words arising from individuals, or observations emerging from a particular setting, as sample units of data that represent the total number of words/observations existing from that sample member/context. Consequently, inferential techniques can be used to generalize words/ observations arising from persistent observations/prolonged engagement to the population of words/observations representing the underlying context. As such, an array of statistical techniques, including those belonging to the general linear model, can be utilized to undertake multi-stage, mixed-methodological analyses (Onwuegbuzie, 2000). Heuristic examples were provided to demonstrate how inferential statistics can be used to provide more complex levels of verstehen than is presently undertaken in qualitative research.



## Thursday, November 16, 2000

### 10:00 A.M.

10:00-10:50 a.m. READING (Discussion Session) Salon A

Presider: Abraham Andero, Alabama State University

THE EFFECT OF PHONEMIC AWARENESS INSTRUCTION IN FIRST GRADE ON THE READING SCORES OF RURAL PRIMARY STUDENTS

Linda H. Thornton and Rebecca Vinzant, Harding University

The purpose of this study was to determine whether second grade students in a rural elementary school who had received a color-differentiated, rhythmic program of instruction in phonemic awareness and orthographic patterns with practice in studentselected trade books in first grade scored higher on the reading subtest of the Stanford Achievement Test than second grade students who had been instructed using a basal reading program. Using a t-test for independent samples, it was found that the students (n=42) who had been taught using the phonemic awareness/orthographic pattern/literature program achieved significantly higher scores on the reading subtest of the Stanford Achievement Test, 9th edition than did the students (n=58) who had been taught using a basal reading program, t(98) = 3.24, p < .01. It was concluded that the phonemic awareness/orthographic pattern/literature program was effective in raising the reading achievement level of the participating students.

#### INCREASING SILENT READING COMPREHENSION RATES VIA REPEATED READINGS

Jennifer T. Freeland and Bertha Jackson, Mississippi State University, and Christopher H. Skinner, The University of Tennessee-Knoxville

Previous researchers have found that repeated reading could be used to increase rates of accurate oral reading or words correct per minute. Furthermore, researchers have found some evidence that repeated readings procedures may also increase the amount of material students comprehend when they are reading aloud. However, researchers have not directly measured the effects of repeated readings on rates of silent reading comprehension (a more functional skill than oral reading as individuals usually read silently). The purpose of this study was to begin investigating procedures designed to directly assess and increase silent reading comprehension rates.

A multi-element design was used to compare the effects of the treatment with a control condition across three secondary students diagnosed with a specific learning disability in reading. During the control condition students were timed while they silently read a passage. Students were then asked to answer five factual questions and five inferential questions. During the repeated readings, condition students read the passage aloud twice to the experimenter and then answered the questions. The number of questions answered correctly and rate of comprehension were measured and graphed. Rate of comprehension was defined by multiplying the percentage of comprehension questions answered correctly by 60 and dividing this by the number of seconds required to complete a reading passage by 100.

Results showed that repeated readings increased factual comprehension levels and factual reading comprehension rates. No differences were found across conditions on inferential comprehension levels or rates. Discussion focused on empirically validating reading interventions using rates of silent reading comprehension and theoretical implications related to enhancing inferential and literal comprehension and fluency.

#### AN INVESTIGATION OF THE SUCCESS FOR ALL READING PROGRAM

Lauren Rabb Wells, Lauderdale County (TN) Public Schools, and Jack Blendinger and Diane Greene, Mississippi State University

This case study investigated the Success for All (SFA) reading program at two Mississippi elementary schools. Approximately 3,000 teachers, students, and parents served as subjects for the study. In particular, the study investigated: (1) whether SFA was being implemented as advocated by its developers, (2) what were students' reading scores on standardized achievement tests, (3) how the program was monitored, (4) teachers, students, and parents attitudes toward reading, and (5) what key informants said about the program. Mixed methods--qualitative and quantitative--were used to collect, analyze, and interpret data. Document review, field observation, surveys, and interviews were used to collect data.

The investigation yielded a number of interesting findings about the SFA reading program. The findings revealed that adherence to the program's protocols, as designed by the developers, was only partial. Standardized achievement test scores increased for some students, but the results were inconclusive: the scores of children in some grades increased, while the scores of children in other grades decreased.

The program's prescriptive nature (i.e., teacher behaviors are carefully scripted) controls teaching methods, children's learning experiences, and curriculum content. Therefore, it was not surprising to find that teachers were less positive in their attitudes toward the program than were students and parents. Younger children (grades K-2) were much more positive about the program and reading in general than older children. Parents were the most positive of the three groups.

Teachers commented that the training they received to teach the program was not adequate and needed to be improved. Reading facilitators were more aware of the details of the program and how it affected students, teachers, and parents than were the principals of the two schools studied. Because the program is so controlling, facilitators and principals both reported that SFA greatly impacts teaching and learning in a school.

10:00-10:50 a.m. STUDENT ACHIEVEMENT (Discussion Session) Salon B

Presider: Mary O'Phelan, Western Kentucky University

PERCEPTUAL TYPOLOGIES OF SUCCESSFUL AND UNSUCCESSFUL STUDENTS IN THE CONTEXT OF GARDNER'S MULTIPLE INTELLIGENCE THEORY

Wade C. Smith, Jr., Tennessee State University

The purpose of this research was to use XXXX High School as a research site to assess the impact of Gardner's Multiple Intelligences (MI) on students' academic successes in 10th-grade English, Social Studies, Mathematics, and Science classes. This research used a two-part minimally intrusive data collection protocol. The student population of XXX's 10th grade was stratified into two academic groups: (1) honors group and (2) regular group. From these two populations 60 students from each research group were randomly assigned to the research participation database. This

resulted in 60 randomly assigned students in the Honors research group and 60 students in the Regular research group. Each student was surveyed to ascertain which multiple intelligence(s) they have used in English, Social Studies, Mathematics, and Science classes. This required each student to complete the survey instrument, Student Multiple Assessment Reporting Test (SMART), four times. Each survey was completed in approximately 10 minutes. The entire data collection process was completed in 40 minutes. Students' semester, first quarter, and second quarter grades were collected. Stepwise multiple regression with hierarchical clustering was used to determine the typologies of successful and unsuccessful students in the core subjects of Language Arts, Mathematics, Science, and Social Studies. There were significant differences between successful and unsuccessful students in all subject areas.

### THE IMPACT OF MUSIC EDUCATION AND ATHLETIC PARTICIPATION ON STUDENT ACHIEVEMENT

Tim Schneider and Jack Klotz, The University of Southern Mississippi

This paper reviewed the literature reporting the relationship between student participation in formal music education activities and its impact on student academic performance during the high school experience. Specifically, the paper reported findings of a recent research study of a stratified random sample of 110 high school seniors selected from a total population of 175 musicians and 200 athletes (nonmusicians) and 865 non-musicians, non-athletes who graduated in 1998. The subjects of this study were drawn from high school students within a large southern metropolitan school district, having a total student population of 40,000 students and serving its high school age population within seven high school attendance centers. The findings of the study reported student achievement results within the identified student groups from a baseline data set that reported student participant achievement scores in the fifth grade and also achievement scores for the participants from testing points at grades six through nine. Additionally, the study employed a causal-comparison design, which allowed for analysis of how the different identified study groups behaved over time using both continuous and categorical data. Reported results were based upon a multivariate analysis of variance that was employed to determine if significant differences existed in the composite means of the identified study population.

### THE RELATIONSHIP BETWEEN PERSONAL CHARACTERISTICS AND PERCEPTIONS OF NATIONAL HONOR SOCIETY STUDENTS

Jerri H. Bullard and Joe W. Wilson, University of North Alabama

This stawas conducted to identify patterns of characteristics among National Honor iety students to provide a more accurate description of this academica successful group. This study has particular significance because the identification of characteristics associated with achievers can then be encouraged, or manipulated, by schools to create a more positive attitude toward learning or a more supportive learning environment. Both secondary and postsecondary school systems would benefit by having information to support measures that might lead to increased retention and lower dropout rates.

Of specific interest to these researchers were the following research questions: (1) What are the common characteristics of National Honor Society students (students who are academically successful)? (2) What personal characteristics and habits are associated with the demographic characteristics of National Honor Society students?

(3) What personal perceptions are associated with the demographic characteristics of National Honor Society students? and (4) Are the personal characteristics and habits of National Honor Society students associated with their personal perceptions?

The data were collected via a survey instrument developed to elicit information related to Honor Society student's background characteristics, personal characteristics and habits, and personal perceptions reflecting self-esteem and self-motivation. All personal characteristic questions and questions related to personal perceptions were scored using a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

The survey was administered during fall 1999 to National Honor Society students from two public schools within a city school system. A total of 78 usable questionnaires constituted the data-producing sample. The two high schools differed in terms of urban-rural classification. Data analysis revealed a number of statistically significant relationships between the demographic variables, students' personal characteristics, and students' perceptions.

10:00-10:50 a.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Jane Nell Luster, Louisiana State University

MODEL BUILDING AND PRESERVICE TEACHER DEVELOPMENT: RETHINKING REFLECTIVE PRACTICE IN TEACHER EDUCATION

H. Michael Crowson, The University of Alabama

Research and theory on preservice teacher development has often emphasized the development of both domain-specific knowledge (Borko & Putnam, 1996) and general reflective capabilities (Mumby & Russell, 1993) as central components of teacher education. It is often assumed that the development of domain-specific knowledge is necessary for addressing specific, well-structured nature of teaching, while the development of more general reflective capabilities are sufficient for managing the more ill-structured (King & Kitchener, 1994) nature of teaching. Although research on these two aspects of teacher development has provided a wealth of information on teacher expertise and has provided avenues for improving teacher education, it has tended to ignore more central aspects of the knowledge construction and revision process that preservice teachers undergo during training. To be sure, the literature on teacher development has failed to adequately address issues pertinent to preservice teachers' overall cognitive developmental capabilities, particularly those related to the development of reflective capabilities. This has resulted in a restricted understanding of teacher development as it occurs within the context of the overall lifespan. This paper examined those processes and contents associated with reflection that may facilitate the construction of more complex mental models (see Johnson-Laird, 1983) of teaching among preservice teachers. Furthermore, it suggested that preservice teacher education should adopt a developmental focus that emphasizes the skills and knowledge that make up individual reflective activity in preservice teachers. Mental models theory (Johnson-Laird, 1983) and research in epistemic knowledge (Kruglanski et al., 1991; Kruglanski, & Webster, 1996; Schommer, 1991, 1998) and statistical reasoning (Nisbett & Ross, 1981; Klaczynski et al., 1997) were recommended as potential avenues for improving preservice teacher development. The paper culminated with a model that incorporates the relationships among statistical reasoning, epistemic knowledge, and motivation in preservice teachers' construction and revision of their mental models of teaching.

#### INSTRUCTIONAL DESIGN: FORGING LINKS WITH PRESERVICE TEACHERS

James R. Craig, Barbara Kacer, and Theron Thompson, Western Kentucky University

Do preservice teachers create linkages between instructional theory and practice? If preservice teachers do create linkages between instructional theory and practice, what is the process of knowledge construction? During field work experience, do students recognize content as a vehicle for instructional design?

John Dewey (1900) called for a "linking science" that connects learning theory and instructional practice. In 2000, curriculum developers are those "linkers." McIntyre, Byrd, and Foxx (1996) lament the "disjointedness of teacher education programs" (e.g., programs that to not work toward developing those linkages). What role (if any) field experiences play in the connection between instructional theory and practice? In other words, how do teachers also become linkers?

Using Posner (1996) as a guide, a set of questions was constructed. During field work, students responded to those questions. Journals were analyzed for critical incidents and emergent categories. Subjects were students from an introductory education class, an introductory methods class, and a science methods class.

Preservice teachers revert to control issues rather than a balanced instructional design. Preservice teachers use the "teacher as manager" metaphor. Preservice teachers assume that their knowledge of content is new and therefore "content will take care of itself." Preservice teachers revert to personal school experiences when reflecting upon what they observed and/or participated in during their field experiences. Growth over time (developing "linkages") often does not occur for preservice teachers.

Results help inform field experience approaches in teacher education classes. Defining perspectives and identifying developmental levels of preservice teachers are critical components in delivering quality teacher education programs. Voices of preservice teachers provide data that should impact curriculum alignment, instructional design, and preparation for fieldwork. The research results delivered pragmatic suggestions for the revision of teacher education programs.

## A THIRD ANALYSIS OF THE PERCEPTIONS AND STRATEGIES OF TEACHERS AS REFLECTIVE PRACTITIONERS

John Light and Janice Myhan, University of North Alabama, and Lynn Gillaspie, Eastern Kentucky University

The purpose of this study was to determine if graduates of a teacher education program were using reflective practices in their classrooms and professional lives. Since the College of Education knowledge-base was founded on a reflective model, faculty members wanted to examine how teachers perceived the importance and degree of usage of reflective practices on a day-to-day basis.

In 1995, data were obtained from 145 graduate students through the field testing of an instrument entitled Teacher Survey of Reflective Practices. Items were designed to assess information related to the following areas: (1) identification of reflective practices, (2) use of professional practices to modify teaching strategies, (3) use of activities and behaviors to teach others, (4) factors affecting reflective practices; and (5) forces influencing teaching practices.

Data collected were analyzed via ANOVA to discern the degree of the actual use of reflective practices in contrast to whether students agreed such practices should be used in modifying classroom instruction. Fifty-one percent reported that they had received training in the use of reflective practice. Seventy-nine percent stated that the use of reflective practices was of "medium" to "high" importance in their current positions.

In 1997, this initial instrument was modified from the previous study. Graduate students were surveyed and the results analyzed. Students reported they had received training in the use of reflective practice and were using these practices in their classrooms.

In 1999, a third study was conducted to establish a baseline for determining program effectiveness. One hundred twenty-six graduate students enrolled in summer classes responded to the survey. Sixty-three percent of respondents indicated they had received training in the use of reflective practices. Eighty-seven percent stated that the use of reflective practices is of medium to high importance.

10:00-10:50 a.m. STATISTICS (Discussion Session) Meeting Room 2

**Presider: Scott Bauer, University of New Orleans** 

#### A REVIEW OF THE LITERATURE ON MISSING DATA

Jesus Tanguma, Texas A & M University

Most studies contain some missing data. The reasons for the missing data are many and varied. Respondents did not provide complete information. Observers failed to record all pertinent information. Participants did not participate throughout the duration of the study. Data were not properly coded/transferred.

Four commonly used methods (listwise deletion, pairwise deletion, mean substitution, and regression substitution) for dealing with missing data were illustrated by means of hypothetical examples.

Listwise deletion, being the default option in many statistical software packages (e.g., SPSS, and SAS), is the one most commonly used, also by default. However, because listwise deletion eliminates all cases from a participant missing data on any predictor or criterion variable, it is not the most effective method.

Pairwise deletion uses those observations that have non-missing values to compute the correlations. Thus, it preserved information that would be lost when using listwise deletion. In mean substitution, the mean for a particular variable, computed from available cases, is substituted in place of missing data values on the remaining cases. This allows the researcher to use the rest of the participant's data.

When using a regression-based procedure to estimate the missing values, the estimation takes into account the relationships among the variables. Thus, substitution by regression is more statistically efficient.

#### THE PITFALLS OF IGNORING MULTILEVEL DESIGN IN NATIONAL DATASETS

#### J. Kyle Roberts, Baylor College of Medicine

Almost half a century ago, Robinson (1950) discovered the need for multilevel techniques while performing regression analyses at different levels of variables (i.e., regressions with students and regressions with schools). Later termed the Robinson effect, these different level regressions "[showed] that analyses executed at different levels of the hierarchy do not necessarily produce the same results" (Kreft & de Leeuw, 1998, p. 3). Although these regressions often gave opposite results when measured at different levels, no existing statistical method could overcome this problem.

Robinson's problem was the inability to describe data that have group regressions with both random slopes (differences among schools) and random intercepts (differences among students). This problem occurs in many large-scale data

sets (Seltzer, 1994). The challenge is two-fold. It is necessary not only to recognize the need for multilevel techniques, but also to utilize the potential value of multilevel techniques to broaden the types of questions that can be addressed (Seltzer, 1991).

Despite the apparent promise of multilevel design, few researchers have used these techniques to study complex problems, especially in school-effects models. Just as Robinson (1950) first noted, companions of more commonly used methodologies invoking multilevel methods might reveal differences in findings across units of analysis that have implications for both policy and practice.

To illustrate the pitfalls of ignoring data structure, this paper provided a brief overview of the national datasets available from the National Center for Education Statistics and illustrated multilevel techniques within the NELS:88 dataset. Multilevel analysis was conducted on 50 variables from the NELS:88. In addition, results from both weighted and unweighted samples were presented. From these results it was argued that, as the intraclass correlation for a given variable becomes larger, the more a researcher needs to utilize multilevel techniques over normal ordinary least squares.

## AN APPLICATION OF GROWTH MIXTURE MODELING TO A STATEWIDE READING INITIATIVE DATASET

Frank R. Lawrence and Marcia R. O'Neal, The University of Alabama at Birmingham

Advances in statistical procedures have spawned new data analysis techniques that can be applied to time series measures. Growth curve modeling (GCM) is one of the relatively new longitudinal data analytic techniques. Data analysts employ GCM to study individual differences over time. Individual differences are captured in the random coefficients, i.e. growth parameters that vary across individuals. The random coefficients may be viewed as continuous latent variables.

Another technique for modeling growth over time is the hierarchical linear growth model (HLGM). The HLGM is particularly useful for modeling individual growth trajectories when those growth trajectories arise in naturally occurring clusters. The HLGM is able to account for variation among individuals and among clusters of individuals, thereby providing the analyst with more precise and accurate information.

An assumption underlying GCM and HLGM is that the subjects came from the same population. Furthermore, these modeling techniques assume that each covariate affects the growth curve parameters in the same way. Yet, covariates do not always affect all individuals in the same way. Hence, it is not realistic to make that assumption. Conventional growth curve models cannot accurately reflect qualitatively different developmental trajectories.

Growth mixture models (GMM) reportedly accommodate qualitatively different growth trajectories. GMM accommodates qualitatively different development though latent class variables. The latent class variable is used to cluster subjects into classes or subpopulations. GMM both estimates mean growth curves for each class and models individual variation around the curves.

This research compared the performance of CGM, HLGM, and GMM by modeling the development of children who participated in a statewide reading improvement program. It may be useful to policy analysts because it shows unique relationships of antecedent variables to growth trajectories. Intervention policy designed around these unique relationships will likely be more cost effective.



# Friday, November 17, 2000

10:00-10:50 a.m. SCHOOL REFORM (Discussion Session) Salon A

Presider: Beverly Klecker, Kentucky Department of Education

#### IMPLEMENTATION OF GRADUATION 2010: YEAR THREE

Mary H O'Phelan, Mary O'Phelan, Antony D. Norman, and Gayle W. Ecton, Western Kentucky University

In 1997, a steering committee of educators and citizens examined research findings in the area of brain development and identified ways to enhance student learning. Originally, eight separate committees were formed, and each one came up with recommendations for new initiatives to be installed in the schools of the district. The eight strands were music, the arts, foreign language, thinking skills, family involvement, health and emotional health, reading and language development, and community involvement. The 1999-2000 school year was the third year of implementation of this project called Graduation 2010. Graduation 2010 has received much attention from educators, legislators, and the media.

The authors have served as the evaluation team to document the program's implementation and progress over the years. This presentation reported on the third year of implementation of the eight strands at the elementary schools in the district. The twelve elementary principals and the district superintendent were asked to rate the implementation of the program goals from "0" (no implementation) to "5" (full implementation). Based on survey results, implementation was classified as low, moderate, or high for each strand. Over the three years, the surveys used for data collection have been modified to reflect changes in the program including new initiatives and refined or discontinued goals. Results of the third year implementation surveys were presented and discussed by strand, by school, and compared with results of the previous two years. Problems encountered with assessing implementation were discussed, and the audience was encouraged to share ideas and join in the discussion.

#### BECOMING A RESTRUCTURED DISTRICT - EXPLORING THE DISTRICT ROLE IN COMPREHENSIVE SCHOOL REFORM

Scott C Bauer, University of New Orleans

While there is a consensus that school improvement must focus on the school as the center of change activity (Sirotnick, 1989), less attention is focused on the role of the district or the effect of school-based restructuring on central office administrators (Murphy, 1994). This paper presented the results of a study focusing on central office administrators' participation in implementing a comprehensive school reform (CSR) model in the districts' schools and the impact of CSR on the role of these administrators. The central research question examined involved discerning how to mobilize district-level stakeholders and organizational processes to support wholeschool change across a school system.

Data were collected through structured interviews of all district administrators (n=13) in a central Louisiana school system, through observation of schools engaged in adopting a national reform model, and in feedback sessions with groups of administrators. Findings were organized into three categories, dealing with: (1) strategic, (2) administrative, and (3) human resource capacity-building throughout the system.

Findings revealed that administrators were unsure of their role in CSR. They felt ill-informed about what was going on in the schools and raised important questions about the administrative support they could provide given their positions. Further, they observed that existing administrative practices did not support CSR and school-based decision making and believed that they could play a role in redesigning these processes if given the information and opportunity to participate.

### SITE-BASED NEEDS ASSESSMENT: A PRACTICAL MODEL FOR THE APPRAISAL OF THE SCHOOL PROGRAM BY ITS STAKEHOLDERS

Leslie L. Griffin and James W. Nicholson, Jr., Delta State University

The study was designed to determine if a comprehensive needs assessment instrument could be used at a school site to involve all stakeholders in an in-depth self-study of school programs and climate.

The instrument was developed for the school setting by a regional education consortium that provided training and technical assistance to member schools. The instrument included the following components: (1) Instructional Leadership, (2) Curriculum and Instructional Management, (3) Instructional Program Delivery, (4) Program Evaluation by Pupil Achievement, (5) School Learning Climate, (6) Staffing/Personnel, (7) Staff Development, (8) Instructional Schedule, (9) Community Resources, and (10) Facilities. Each component was comprised of questions designed to gather information on factors pertinent to the area under investigation. Responses were substantiated with evidence.

The instrument was used to assess an elementary school with 439 students in grades Pre-K through sixth grade. The staff included two administrators, 26 teachers, and 15 teacher assistants. Parents and other noninstructional staff provided information relevant to several of the components.

The primary researcher for the project initially met with stakeholders to review sample items from the assessment instrument. Thereafter, periodic site visits were made to direct and assist stakeholders in collecting data, both qualitative and quantitative. Classroom observations were made, documents reviewed, and artifacts collected as evidence for each factor addressed in a component.

Evidence was analyzed, and recommendations were made related to each factor. Conclusions were drawn for the area being assessed and broad recommendations were made. A comprehensive report describing the school's program and climate provided a reference for stakeholders to use as they reform school programs and improve the school climate.

The comprehensive needs assessment instrument provides a model for schools desiring to conduct a self-study involving all stakeholders.

10:00-10:50 a.m. ATTITUDES (Symposium) Salon B

Presider: Stephanie Smith, Mississippi State University

INVESTIGATING THE VARIABLES THAT AFFECT TREATMENT INTEGRITY

Investigating the Variables that Affect Treatment Integrity Stephanie L. Smith, Mississippi State University

The Effects of Behavioral versus Non-behavioral Phrasing on Treatment Acceptability Lorrie A. Howell, Mississippi State University

Changes in Treatment Acceptability Ratings of an Intervention Described in Behavioral vs. Humanistic Jargon Stephanie L. Smith, Mississippi State University

Treatment Acceptability as rated by Elementary School Teachers of an Intervention framed Behaviorally or Humanistically Stephanie L. Smith, Mississippi State University

The current literature suggests that the way in which a proposed treatment is framed (i.e., behaviorally or humanistically) may affect the degree to which the intervention is implemented by teachers. The authors investigated the affect of behavioral versus humanistic jargon on the reported acceptability of an intervention as rated by pre-field experience, post-field experience, and mentoring school teachers. Two versions of an intervention, differing only by behavioral versus humanistic terms, were presented to each participant. Treatment acceptability of each description was assessed using the Behavioral Intervention Rating Scale (BIRS). An interpolated task was completed to reduce carry-over effects. The investigators found that at the postfield experience level, student teachers rated the behaviorally framed description as less acceptable than the humanistically-framed description. At the pre-field experience level, student teachers did not report any differences in acceptability of the two descriptions of the intervention. However, the same students after their field experience reported a negative bias against the behavioral description of the intervention compared to the humanistic description. The investigators speculated that this bias against behavioral framing may originate through the interaction with the mentor teachers. The teachers that served as mentors for the field-experience students rated the acceptability of the behavioral and humanistic descriptions of the intervention. The mentor teachers reported a negative bias on acceptability ratings of the behavioral description when compared to the ratings of the humanistic description. The authors concluded that terms used to frame an intervention affect the reported acceptability of that intervention. Although both descriptions of the intervention were comprised of the same components, participants rated them differently as a function of their jargon. Both samples of student teachers reported a negative bias against behavioral jargon at the post-field experience level. One of these samples was surveyed at the pre-field experience level, and no differences were observed in acceptability ratings of behavioral and humanistic frame.

The authors concluded that field experience in the schools changes future teachers' attitudes toward behavioral jargon. Consultants who propose interventions to teachers need to be sensitive to this bias against behavioral jargon as it affects treatment acceptability and possibly treatment integrity.

10:00-10:50 a.m. ADULT EDUCATION (Discussion Session) Meeting Room 1

Presider: Rod Roth, The University of Alabama

PERSPECTIVES ON MIDLIFE DEVELOPMENT

#### Wendy L. Jordanov, The University of Memphis

Adult development during middle age is of interest to psychologists, sociologists and many individuals faced with this age or stage of life. Throughout the past 40 years, numerous theorists have shared their perspectives about adult development and middle age. This paper addressed the methodologies and research conclusions of Erikson, Neugarten, Gould, Levinson, Fiske, Vaillant, and Livson. Experiences and challenges that are often expected at midlife are reported. In addition, suggestions of how adults can prepare themselves to age more successfully are discussed.

One theorist used a clinically-based model, while others used cross-sectional or longitudinal research methods to arrive at their theories. Four theorists chose an age-based approach while three focused on the stages of development. Two theorists noticed no "important" differences in males and females while the others each reported unique characteristics in the development of men and women.

Experiences and challenges of middle age reported by the theorists were reviewed. Some of the challenges that adults in midlife may experience include recurring themes of identity, intimacy and integrity, a switch in focus to time-left-to-live rather than time-since-birth, a tendency for individuals to increase self-protectiveness as they age, and the painful press of society on individuals wanting to discover themselves. Additional experiences were addressed.

Recommendations for adults facing midlife are offered by several of these theorists. Some of the suggestions are that adults should strive for balance and self-actualization, set boundaries, move toward egocentricism, develop executive processes, increase self-protectiveness, seek solitude, reevaluate commitments, and maintain flexibility. Additional recommendations were addressed.

## THE STRUCTURE OF ACADEMIC VARIABLES AMONG COLLEGE STUDENTS: A META-ANALYTIC APPROACH

Jwa K. Kim, Angelique M. Martinez, and Shelly S. Spaulding, Middle Tennessee State University

The weighted effect size between college students' grade point average (GPA) and the standardized test scores such as Scholastic Aptitude Test (SAT) and American College Test (ACT) was examined through meta-analysis in various settings. Also explored were the general trend and structure of the published articles concerning the relationship between academic achievement in college and SAT or ACT. A total of 22 published articles between 1987 and 1997 were included for meta-analysis.

Analysis revealed the effect size of .28 between college GPA and SAT/ACT for the total group with sample size (n) of 108,493. The effect size for the male group, female group, and mixed group was .32 (n = 15,373), .34 (n = 12,890), and .27 (n = 80,230), respectively. In computing the effect size between college GPA and SAT/ACT, using either SAT or ACT resulted in almost identical numerical point: effect size with SAT was .28 (n = 96,286) and with ACT was .29 (n = 12,225). The general trend and structure of published articles in the area of college GPA and SAT/ACT were investigated with respect to journal name, author's name, and year of publication.

Characteristics of each subgroup in terms of effect size as well as general trend and structure were discussed in conjunction with previous findings. This study disclosed useful information through meta-analysis in the field of college students' academic performance including college GPA, SAT, and ACT.

10:00-10:50 a.m. RESEARCH/STATISTICS (Discussion Session) Meeting Room 2

#### Presider: Ernie Rakow, The University of Memphis

#### VIEWING QUANTITATIVE DATA THROUGH QUALITATIVE EYES

Randy Parker, Louisiana Tech University

School districts, educational, and government organizations, as well as private groups, generate and keep tremendous amounts of data on a regular basis and for a variety of purposes. It is, however, the interpretation of these data that provides understanding and meaning to phenomena and allows researchers to draw appropriate conclusions. The purpose of this paper was to put forth the position that qualitative researchers, in their quest for understanding, have too often viewed official statistics with only a cursory or descriptive analysis without deeper reflection or critical analysis as to the assumptions of the persons who collect and use quantitative data.

The assumptions and methodological paradigms of researchers influence their decisions in data collection, analysis, and interpretation. Constructivists and critical theorists should find this approach useful in determining how statistics support, contradict, or are inconsistent with participants' worldviews. Just as insight can be gained by looking at the reasons why photographs were taken or saved, viewing quantitative data from a qualitative perspective allows the researcher to examine how enumeration is used by participants in constructing reality. Considering the social processes involved in numerical data collection, as well as, the effects of quantification on how people in varying levels of an organization think, act and react to these processes can provide insight into phenomenological understanding.

Viewing numerical data qualitatively suggests several questions: (1) How is what to count and how to count it decided? (2) How does counting influence the meaning of events or affect activities? (3) How are rates related to social and historical contexts or social forces? (4) How is a count understood within an organization? and (5) What is the symbolic meaning of counting to the various participants? Viewing quantitative data through qualitative eyes can guide an inquiry that expands rather than confines understanding.

#### NAVIGATING ELECTRONIC SURVEY METHODS: THREE PILOT STUDIES

Louis A Franceschini, Memphis (TN) City Schools

Increasingly widespread access to email and the World Wide Web and the ready availability of special-purpose software are two conditions prompting educators to examine the relative advantages of surveying electronically. Using an integrated package called Survey Solutions for the Web, researchers affiliated with a large urban school district undertook a trio of "modal" studies to investigate such hypothesized efficiencies empirically.

Embedded in a survey of district principals, an initial pilot sought to compare the speed, efficiency, and rate and quality of response of Web- and paper-based questionnaires. While the overall response rate to the questionnaire was low (and that of the treatment group lower than the control's) the Web-based responses were received more quickly and were processed with greater dispatch. No modal effect was observed with respect to the questionnaire's directed response items; nevertheless, the quality of response on the questionnaire's open-ended items was pronounced in favor of the treatment group. When asked about the likelihood of future Web-based surveys, some 64% of the respondent pool answered affirmatively, only 16% negatively.

In a second pilot, nine faculties were queried via a disk-based, computerized self-administered questionnaire (CSAQ). While return of the materials did not exceed

conventional expectations, back-end processing of the data was markedly facilitated. Moreover, as roughly 93% of the disks and diskette mailers presented themselves for reuse, the unit cost per survey was determined to be less than that for paper-based alternatives.

A final pilot examined the utility of electronic methods in enabling "data driven school improvement." At each of two schools, a stratified random sample of children was administered a Web-based, "school climate" instrument. Uniformly, children evidenced little difficulty in negotiating its interface and were observed to prefer the electronic method almost unanimously. Among faculty, however, the CSAQ was rated the more "user friendly" alternative.

### CHARACTERISTICS OF ITEM RESPONDENTS WHO FREQUENTLY UTILIZE MIDPOINT RESPONSE CATEGORIES ON RATING SCALES

Gail H. Weems, The University of Memphis, and Anthony J. Onwuegbuzie, Valdosta State University

A fervent debate among instrument developers/psychometricians involves the validity of midpoint response categories on scales. Proponents of midpoint options contend that the midpoint increases measurement reliability (Courtenay & Weidemann, 1985) and that the exclusion of the midpoint choice provides a viable option for respondents who genuinely do not have an opinion regarding a particular item, preventing them from "artificially creat[ing] opinions" (de Vaus, 1990, p. 85). Opponents assert that midpoints provide respondents with a way to respond with minimal thought to their responses, culminating in a "piling on the midpoint" (Alreck & Settle, 1985, p. 156) when opinions are not firm, thereby attenuating score reliability (Alwin & Krosnick, 1991). The midpoint controversy likely stems from its seemingly ambiguous meaning. Specifically, the midpoint could imply "neutral," "don't know," "don't care," or "no opinion."

Researchers have examined the effect of the use and location of midpoint options on score reliability and validity. However, little is known about factors that prevail in making midpoint choices. Thus, this study investigated characteristics of respondents who frequently utilize midpoint categories on rating scales. Also of interest was to examine the effect of including/excluding midpoint choices on item mean and reliability. An additional objective was to determine the effect of utilizing reverse-code items on scale mean and reliability.

Several datasets were analyzed, yielding many findings. For example, a sample of 77 students revealed that those who most frequently utilized the midpoint option on a 45-item, five-point Likert-format measure of research anxiety tended to be tactile/kinesthetic learners, with negative self-perceptions about their academic competence, who were not self-oriented perfectionists but were socially-prescribed perfectionists, and who lacked persistence. Another sample of 522 students responding to a 43-item, five-point Likert-format measure of library anxiety indicated that elimination of the midpoint option did not increase score reliability. Implications of these and other findings were discussed.

10:00-10:50 a.m. TECHNOLOGY (Display Session) Meeting Room 4

#### CONDUCTING SURVEY RESEARCH VIA THE INTERNET

Margaret L. Rice, Vivian H. Wright and Elizabeth K. Wilson, The University of Alabama; Jay Cofield, University of Montevallo; and Suzanne P. Stokes, Troy State

#### University

Researchers in many disciplines have long used surveys to collect research data. In the past, the most common ways of administering the surveys were by mail or phone, both of which can be expensive and time consuming. The advent of the Internet has provided researchers with the ability to conduct surveys that reach a wider population, have a faster turn around time, are less expensive, and require less time.

Many of the problems associated with traditional data collection methods also affect online data collection, including difficulty in contacting potential participants, non-communication or non-participation by individuals contacted, and being sure you have a representative sample. However, the Internet has advantages over traditional methods: (1) it is generally faster, (2) it is less expensive than phoning or mailing methods, (3) it provides the researcher with the ability to contact wider geographical areas and (4) it provides more accurate data and saves time if the data are transferred automatically from the survey to a database. Thach (1995) analyzed the use of electronic mail to conduct survey research and found it to be cheaper, easier to edit, faster to administer, and simpler to invite participants; it had a higher response rate, more candid answers, and a potentially quicker response time with a wider area of coverage.

This presentation provided step-by-step instructions on how to create and upload Internet survey forms and how to have the data from the surveys automatically loaded into an existing database. Various projects in which this data collection method was used were discussed.

### COMPRESSED VIDEO INSTRUCTION: TRENDS, ISSUES, AND PEDAGOGICAL IMPROVEMENTS

#### J. Gordon Nelson and Franklin King, Jacksonville State University

Compressed Video (CV) is a new teleconferencing system allowing for interactions between instructors and students on and off campus. Although universities are becoming more interested in this type of "distance learning" course delivery, little research has been conducted to investigate the effectiveness of this method. In January 1997, Alabama's Jacksonville State University (JSU) established a compressed video network serving four different locations and offering four graduate courses. Since then, several more sites have been added. By summer 2000 there were twelve sites and an average of five courses each semester. Three years of teaching CV courses has provided an opportunity to identify and solve problems unique to successful teaching with this format.

In spring 2000, a survey was taken to assess the attitudes of graduate students toward a CV class they had taken. This survey was identical to the earlier survey taken in the spring 1997, thus providing an opportunity to compare results at a three-year interval. Trends were analyzed and information gained on several variables; among them, instructor concerns, student attitudes, and course improvements. One major concern was the monitoring of on/off-task behaviors of off-campus students. Survey results indicated that multimedia presentations (e.g., PowerPoint) were found to be well suited to the CV format with off-site students viewing TV monitors, and that these multimedia presentations were highly effective in monitoring student attention in the off-campus sites. Students were enthusiastic, attentive, and interested in the multimedia-presented lectures and interactions. Instructors were also enthusiastic with their presentations.

This display presented data and issue trends from both surveys, information on JSU-CV hardware and software, and examples of successful multimedia techniques for CV courses. The general finding indicated improved satisfaction in all areas, largely

due to multimedia pedagogical techniques.

### AUTOMATING DISTRICT-LEVEL REPORTS FOR A STATEWIDE ACCOUNTABILITY PROGRAM

Michele G. Jarrell, The University of Alabama at Birmingham

The display traced data from student-level results on statewide tests through data analysis, criteria setting, model runs, data export from SAS, data formatting in BASIC, and production of final district-level reports using Microsoft WORD macros. This is a system that has been used in a state program for several years with good results. The original reporting system was developed in WordPerfect but has been adapted to Microsoft WORD. The system prevents hand entering data for numerous performance variables, thus eliminating data errors in the district reports. The reports list each variable with its criterion, the district's score, and a flag indicating whether the district met the variable. District accountability ratings are also calculated and reported.

The system shows how much simpler reporting results can be when one uses all of the features of various computer programs.

10:00-10:50 a.m. PUBLICATION (Training Session) Meeting Room 5

#### WRITING AND GETTING PUBLISHED

John R. Petry, The University of Memphis

Training centered around opportunities and problems associated with writing and publishing articles and manuscripts. Topics included sources of ideas for research and writing, guides for effective writing, proofing and editing a manuscript, publication sources, preparing a manuscript, methods for submitting manuscripts, criteria for evaluating manuscripts, and ethics in authorship and publishing. Other topics included elements of style, such as elementary roles of usage, principles of composition and form, an approach to style, and faults in scholarly writing. The use of the computer in writing and editing was explored.

Objectives of the session were to increase the awareness of attendees about opportunities to publish, raise standards for writing quality manuscripts, and establish minimum guidelines for professional growth. Use of technology was of primary value, including electronic publication.

Activities included a diagnosis of the basic writing skills of attendees, analysis of articles ready for submission to publications, and administration of a predictive measure for publication success. Sources for publishing were presented and discussed. Publication sources were identified that gave the manuscript submitters a higher chance of achieving success for acceptance. Participants' manuscripts were evaluated for their content, style, impact on the reader, value to the scholarly community, and importance as a contribution to literature.



## Wednesday, November 15, 2000

### 11:00 A.M.

11:00-11:50 a.m. CULTURE (Discussion Session) Salon A

Presider: Linda Coats, Mississippi State University

#### CURRICULUM REFORM TO ADDRESS MULTICULTURAL ISSUES IN SPECIAL **EDUCATION**

Mary J Hayes and Valencia Price, Tennessee State University

The over-representation of African American children and youth in special education programs has remained a persistent reality even after 25 years of recognition. There are a number of reasons for this difference in placement practices, which includes placement and testing procedures, cultural differences, parent and teacher training programs, economic factors, and the inability of schools to educate diverse populations adequately. The fact exists that disproportionately large numbers of African Americans are being persistently misdiagnosed as disabled and placed in special education programs. However, the root of the problem may be in how institutions of higher education (IHE) are preparing preservice teachers. Within traditional teacher programs, special and regular preservice teachers are educated in separate, but equal programs. New teachers in the regular classroom are too often ill-prepared to meet the challenges in today's diverse school environments.

Coursework at the college level has not concentrated on classroom management techniques, modifications of curricula materials to address the needs of diverse learners, or collaborative strategies to promote dialogue among parents, students, and other educators. In order for IHEs to graduate teachers fully prepared to teach culturally and ethnically diverse students effectively in the 21st century, curriculum reform must be a priority.

#### A FREE, APPROPRIATE PUBLIC EDUCATION FOR ASIAN-ORIGIN STUDENTS WITH DISABILITIES - CULTURAL VARIABLES

Qaisar Sultana, Eastern Kentucky University

According to the Individuals with Disabilities Education Act (IDEA), all children with disabilities between the ages of three to 21 are entitled to a free, appropriate public education (FAPE). According to IDEA, about 12% of school-age children have disabilities. IDEA contains several provisions to ensure nondiscrimination. Yet, the number of Asian-origin children with disabilities continues to be lower than their proportionate school population.

The under-identification of Asian-origin children with disabilities is attributed both to the Asian cultures and the lack of knowledge of Asian cultures among the educators. IDEA, 1997, has an increased emphasis on inclusion of students with disabilities in general education. For students of Asian origin it may mean an even greater degree of under-identification and failure to receive FAPE. It has also given the parents of students with disabilities a greater degree of participation and involvement in the education of their children. For many Asian families this participation may not be possible because of their linguistic and cultural differences.

The purpose of this presentation was to assist in the development of an educational environment sensitive to and supportive of the rights of all students with disabilities as guaranteed under IDEA. Specific objectives of the proposed presentation were to: (1) present the relevant cultural values prevalent in many Asian countries, (2) sensitize educators of the dominant culture of these cultural differences and their effects on the behaviors of students of Asian origin and their families, (3) articulate the unique problems and needs of Asian-origin students with disabilities and their parents, and, (4) point out the additional responsibilities of the schools vis-a-vis Asian-origin students with disabilities for providing them a free appropriate public education.

#### ADDRESSING MINORITY STUDENT ACHIEVEMENT IN KENTUCKY

Linda H. Frazer and Ivan L. Zabilka, Kentucky Department of Education

The gap in performance between African American and white students has been present and persistent for decades. The gap is well documented nationally and is pervasive wherever sizable minority populations exist. National evidence were briefly summarized.

Kentucky also exhibits the minority performance gap, yet Kentucky has some unique characteristics. Kentucky has a smaller percentage of African American students than other southern states (11%). The African American students are concentrated in five districts out of 186, with 50% residing in one district. The difference is smaller in reading than the other subject areas, presumably because of reading programs and initiatives, including Title I. Recent disaggregation of results for the 1999 Commonwealth Accountability and Testing System (CATS) has provided new information and the ability to identify schools that are successful in addressing the performance gap.

The disaggregation was descriptive in nature, producing comparisons by gender, ethnicity, free or reduced lunch as an economic indicator, disability, and accommodations of those disabilities. The data were directed toward an initiative by the Kentucky Department of Education (KDE) to address the performance gap. KDE assembled a Minority Student Achievement Taskforce, consisting of 70 stakeholders. The Taskforce met from May to August 2000. The procedures and results of the Taskforce procedures were summarized. Over 60 proposals were evaluated, and a final group for implementation was selected by the November MSERA meeting.

Initial results of site visits to schools, which have succeeded in closing the gap, pointed to leadership, placing students in demanding courses, reducing the numbers of minority students placed inappropriately in special education, and class-size reductions in first through fourth grades. Evaluation of these components and additional initiatives will be the subject for additional research.

11:00-11:50 a.m. STUDENT ACHIEVEMENT (Discussion Session) Salon B

Presider: Daniel Surry, University of South Alabama

ACHIEVEMENT POWER: IS IT IN EXTENDED SCHOOL SERVICES?

Barbara A. Kacer and James R. Craig, Western Kentucky University

The Kentucky Educational Reform Act (KERA) of 1990 is a massive education reform bill that specified many new initiatives to improve public schools in Kentucky.

The Concerns-Based Adoption Model (Hall & Hord, 1987) of education innovation implementation is the theoretical basis of an evaluation based on a three-year longitudinal study that focused in part on the implementation of extended school services in selected Kentucky middle schools.

A sample of 10 middle schools chosen to represent low, medium, and high initial student achievement baselines and the eight geographic regions of the state was identified and followed for three years. Seven of the middle schools had demonstrated a pattern of improvement in student achievement, while three had not.

One of three diagnostic Concerns-Based Adoption Model assessment tools is the Innovation Configuration Component Map, which specifies key component features of an innovation and what "ideal" level to "in-use" means. The Extended School Services Innovation Configuration Component Map (ESSICC Map) was developed and field tested by teams of educators who systematically identified and evaluated the relevant components and component variations using procedures established by Heck, Steigelbauer, Hall, and Loucks (1981).

The ESSICC Maps were completed by interviewing the Coordinator of Extended School Services in each school. Some map characteristics were verified via direct observation of extended school services activities. The ESSICC Map data provided a profile of extended school services use as related to overall student achievement in selected Kentucky middle schools. As a school's extended school services program more closely approximates what is conceived as the ideal model, overall academic achievement of the school tends to improve. A modified ESSCC Map has been created, and its use was discussed.

#### IT'S TIME TO DROP THE OTHER SHOE: THE EVIDENCE ON TEACHER AIDES

Charles M. Achilles, Eastern Michigan University, and Jeremy D. Finn and Susan Gerber, SUNY Buffalo, NY

Teacher aides are common in education, especially in remedial and special-education classes, yet little is known about their effect on student outcomes. Project STAR is known for its class-size results, but few have inquired about the teacher-aide condition in this large (11,601 students), randomized (teachers and students), longitudinal (grades K-3) education experiment.

In STAR, students were randomly assigned to one of three conditions within a school: (1) Small (S) class (average 15), (2) Regular (R) class (average 24), and (3) Regular Class with full-time aide (RA). Teachers (n=1340) were randomly assigned to classes. Annually, students took criterion-referenced tests (CRT) and norm-referenced tests (NRT). Results were compared using MANOVA (originally) and HLM (later). Other outcome measures (e.g., behavior, attendance) were also used.

After students left the experiment (grade 4), they were followed through the grades. Available long-term data included achievement scores, high school records, grades, some behavior data, and ACT/SAT scores of students planning for college.

With few exceptions, short- and long-term results of STAR show that, in general, the presence of a teacher-aide in the classroom is not associated with academic gains for students. Second, teacher aides are not associated with improved student behaviors. Finally, teacher aides are not associated with teachers' own sense of efficacy in the classroom -- regardless of the functions performed by the aides.

Teacher aides are not a suitable substitute for small classes in the early grades. The teacher aide issue needs serious attention if aides are to remain a key element of programs for minority and hard-to-teach students. Recommendations for improving the current situation will be forwarded.

# STUDENT COURSE-TAKING DELIVERED THROUGH A HIGH SCHOOL BLOCK SCHEDULE: THE RELATIONSHIP BETWEEN THE ACADEMIC CORE AND STUDENT ACHIEVEMENT

Nicholas L. Brake, Daviess (KY) County Public Schools, and University of Louisville

This study examined high school student course-taking trends and achievement as a result of the curriculum delivered in two forms of "block" scheduling compared to a traditional schedule to determine: (1) if students are spending a significant amount of time studying subjects not in the academic core curriculum as a result of the choice a block curriculum gives students, (2) if the amount of time a student spends studying a core curriculum can successfully predict their postsecondary readiness, and (3) the course-taking trends that emerge as a result of the block curriculum compared to the curriculum associated with a traditional schedule.

The researcher analyzed 300 transcripts from the graduating classes of 1995 and 2000 at two high schools tracking the hours students studied core academic subjects and elective subjects, including vocational and technical courses. Measures of academic achievement included: (1) grade-point average, (2) class rank, (3) pre-college aptitude test, and (4) post-secondary transition. Each school operated on a six-period traditional schedule in 1995 and switched to a version of block scheduling in 1996. School A used an alternating day 1/ day 2 schedule; School B used a 4 x 4 semester block schedule.

Data were analyzed using ANOVA and linear regression to predict the significance of the time spent studying a core curriculum to the student's postsecondary readiness. Tentative conclusions were drawn. The findings of the study suggested implications for curriculum development and course offerings on a block schedule at the high school level.

#### 11:00-11:50 a.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Kathy Franklin, University of Arkansas at Little Rock

#### THE KNOWLEDGE OF LEGAL ISSUES NEEDED BY TEACHERS AND STUDENT TEACHERS

Dana R. Monts, Arkansas Tech University

There are numerous legal issues that must be considered in a school by the administration and teachers. Teachers and student teachers are strongly advised to learn about these issues as their best protection against becoming involved in a court case. The training of a student to be a teacher is a multifaceted process. The legal responsibilities of the teaching profession is one to those facets, yet it is rarely offered as an academic course.

A full understanding of the legal responsibilities of a teacher is part of becoming a truly professional educator. According to the literature, the majority of colleges and universities do not provide a separate academic course or even a section of a course, to teach these responsibilities. As can be seen in the news media, teachers do not always avoid the bad judgments, indiscretions, and honest mistakes that lead to judicial proceedings. Without such a course or section of a course, new teachers are being short-changed by licensing them with little or no awareness of the serious legal pitfalls that they may encounter or ways to avoid them.

MOVING PRESERVICE TEACHER'S BELIEFS ALONG A RATIONALITY CONTINUUM: IRRATIONAL TO RATIONALIZED TO RATIONAL

#### Bonita C. White, The University of Memphis

Beliefs about teaching, learning, students, and content affects the practice of teachers. The beliefs with which prospective teachers as a whole enter teacher education are transmissive in nature and are incongruent with "best practice." Teacher educators have attempted variously to positively affect these beliefs. Typically, however, prospective teachers exit teacher education with their beliefs relatively intact. Beliefs are not readily amenable to change.

To facilitate the restructure of beliefs, teacher educators have long recommended helping prospective teachers gain active awareness of their beliefs. Active awareness is necessary. Prospective teachers should also know why they believe what they do and should be able to justify their beliefs via informal reasoning. Only then will they be able to recognize inconsistencies, bias, and local interpretation in their own beliefs and in the actions that emanate from them, and only then will beliefs be amenable to coherent change.

An empirical basis for this claim has been established by framing beliefs in terms of epistemology. Building on the work of Kuhn (1998), King and Kitchener (1994), and Perkins (1991), a foundation for our position was established by identifying critical thinking, metacognition, and informal reasoning as essential aspects of the desired level of epistemology. Each was described. Descriptive research on epistemology of adults and on its correlates with other constructs, e.g., critical thinking, metacognition, motivation, age, and level of education, was presented. Then, the thinking related related to knowledge and knowing for each of three superordinate levels of epistemology (corresponding to irrational, rationalization, and rational) was described. Embedded in this description are critical thinking, metacognition, and informal reasoning.

Conclusions were based on identifying what prospective teachers could learn to help them move in a positive direction along the rationality continuum.

Recommendations for needed research were based on this claim.

### INFORMATICS AS A FIELD OF STUDY IN EDUCATION: A NEEDS ANALYSIS AND RESEARCH AGENDA

Robert G. Stewart, East Tennessee State University

Information has long been a sine qua non in the affairs of humankind. Its recent predominance has led many to proclaim that the "information age" is at hand. Indeed, the impact of this new age on medicine is such that a new field informatics has emerged out of efforts to study and ameliorate its effects (e.g., information overload). The central aims of medical informatics are to design, test, and disseminate educational and decision-support applications. To date, the field boasts a unified knowledge base, an organized group of scholars, a dedicated journal, and funded graduate study programs.

In this paper, the tenability of informatics as a field of study in education was explored along two lines of inquiry: (1) "Are the nature and extent of information problems in education comparable with the disciplinary aims of informatics?" and (2) "What research is needed to develop an educational informatics program?" With regard to the former, a needs analysis of all educational levels (primary, elementary, secondary, postsecondary) and constituencies (students, parents, faculty, community, administrators) was conducted. Based on these findings, a typology of information problems in relation to the aims of informatics was described.

With regard to an emerging field, initial research efforts should focus on definition and differentiation with regard to related disciplines. More specifically, studies should be exploratory, descriptive, and comparative in design. Based on these

prescriptions and findings from the needs analysis, a research agenda was described. It is unlikely that education's information problems will be resolved through current efforts (viz., occasional and coincidental research). What is more likely, however, is that these problems will continue to increase in complexity and severity over time. Based on this investigation, it was advocated that informatics be pursued as a field of study in education.

#### 11:00-11:50 a.m. EDUCATIONAL LEADERSHIP (Discussion Session) Meeting Room 2

Presider: Fred Groves, University of Louisiana at Monroe

### INTERVIEWING PRACTICING ADMINISTRATORS: AN UNDERUTILIZED FIELD-BASED INSTRUCTIONAL STRATEGY

Jack J Klotz, The University of Southern Mississippi, and Pat Joachim, The University of Southern Mississippi, Gulf Coast Campus

This paper presented a perspective that addressed the value of designing and incorporating an instructional strategy of field-based administrator interviews by master's degree graduate students in a cohort program in educational administration. The paper further provided examples of how components of educational administration instructional programs can be correlated to specific interview questions allowing students to gain further insight of how such theoretical components as motivational theory, instructional leadership, school governance, formative and summative assessment, collaboration, school-community relations, technology utilization, facility usage, and maintenance, to name but a few, are translated into action by field based administrators.

The presentation centered on the resulting analysis of three such cohort group experiences with field-based interviews of practicing school administrators. Comparisons and contrasts between recorded responses relative to reported administrative practice by elementary, middle/junior high, and high school administrators were presented. Additionally, graduate student reactions and reflections regarding their findings and the possible impact on the students' conceptual leadership platforms were shared.

## MENTORING DESCRIPTIONS AND OUTCOMES OF PRESERVICE ADMINISTRATION PROGRAM STUDENTS

John D. Light, University of North Alabama

In 1992 the Alabama State Board of Education implemented new administration certification requirements that included a 300-hour internship field-based practicum under the mentoring of practicing administrators. The State Board of Education's original proposal included a training component for practicing administrators to qualify as mentors and a service stipend for each intern accepted. The training and service stipend elements were eliminated from the adopted rules.

At the conclusion of the administration program requirements at the University of North Alabama, the intern participates in an exit interview with the administration faculty to discuss barriers, hardships, and the manner faculty members can be of better service. Frequently, the interns have discussed the difficulties of working with the mentor administrator. A range of issues was mentioned to include mentoring skills,

expectations of the administration intern, and communication needs for both the intern and mentor.

The purpose of this study was to assess and classify the issues interns were experiencing in the mentor-intern relationship. A survey instrument was developed to collect data in the following areas: (1) mentoring practices, (2) mentoring behavior, (3) learning through mentoring behavior, and (4) factors affecting the mentoring relationship. The instrument was piloted among student interns who were near completion of the administration program but outside the sample.

Eighty-one surveys were distributed in September 1999 to student interns who had completed the administration program between the terms of spring 1993 and summer 1999. Thirty-five instruments were analyzed via ANOVA to discern the degree of importance literature driven mentoring practices and behaviors should exist in contrast to whether interns agreed such practices and behaviors were experienced in the students internship. Gender and years of experience in education demonstrated significant variances in practices in communications and interest in the intern's career advancement.

### ASSESSING PERFORMANCE OUTCOMES USING PORTFOLIOS WITH GRADUATES ENROLLED IN AN EDUCATIONAL LEADERSHIP CLASS

Jerry Brooksher Gee, Nicholls State University

Professors in Educational Leadership programs have in the past utilized performance-based outcomes as a partial means of assessing whether graduate students have reached pre-set standards with performance outcomes. Additionally, a significant number of accreditating agencies and state boards of education are moving toward performance-based assessment.

The purpose of this study was to direct graduates: (1) in meeting the specifications of three standards/objectives, with performance outcomes commonly utilized in "School-Community Relations" courses, and (2) to have these students reflect on articles taken from the media, professional journals, and Internet as attributes of evidence, using portfolios as a viable means of assessment.

Guidelines esished by The Northwest Evaluation Association regarding utili zation of portfolios for student assessment were used in this study. These guidelines recommend student participation in selection of portfolio content, process for selection of materials, criteria for judging merit, and attributes of evidence for reflection by the student.

The methodology in this study involved 28 graduates enrolled in a "School-Community Relations" course during spring 2000 semester. Portfolios were cooperatively constructed consisting of articles from the media, professional journals, and the Internet. The materials were organized according to four categories: (1) understanding the community, (2) administering the program, (3) relations with special publics, and (4) communication tools and strategies."

The results of the study revealed that a standard/objective requiring a graduate to have knowledge of current principles and practices of "School-Community Relations" could be witnessed by the student's ability to cite, describe, and discuss, as specified, "current happenings," as performance outcomes. This ability would have been acquired from the student's reflections of the articles in the portfolio collection. The reflections would be the attributes of evidence. "What have I learned from this experience?"

11:00-11:50 a.m. TEACHER EDUCATION (Display Session) Meeting Room 4

### IMPLEMENTATION OF PROBLEM-BASED LEARNING IN AN ELEMENTARY PRESERVICE TEACHER PROGRAM

Bobbie K. Richardson and Mary E. Howe, Mississippi State University

The ACHIEVE Mississippi Project is a collaborative effort involving Mississippi State University, Alcorn State University, three community colleges, and 24 local educational agencies. This project features the implementation of problem-based learning to prepare quality preservice teachers in the state of Mississippi.

Problem-based learning is a strategy that utilizes critical and problem solving skills along with content knowledge to solve real-life, open-ended problems. Learning becomes active, student-centered, and integrated across the curriculum. By utilizing this strategy in the elementary teacher program, graduates will be better prepared to make ethical decisions as classroom teachers.

The significance of using problem-based learning in a teacher preparation program is that it: (1) enhances knowledge, critical thinking, and learning in relevant and authentic settings, (2) develops team building skills, and (3) improves students' communication skills. In addition, the existing elementary curriculum is being modified to reflect pedagogy based on a theory of teaching and learning. Thus, the college faculty's role will change from didactic classroom manager to facilitator of learning. The students become more responsible for their own learning, and learning becomes more intense and meaningful.

#### FACTORS ASSOCIATED WITH TEACHERS' BELIEFS ABOUT DISCIPLINE

Ann E. Witcher and Janet Filer, University of Central Arkansas; Anthony J. Onwuegbuzie, Valdosta State University; and Jan Downing, Eastern Kentucky University

Student behavior is perceived to be one of the most, if not the most, serious problem facing our nation's schools. Because appropriate behavior is crucial to everything that happens in a classroom, one's approach to classroom discipline can make or break a teacher. Discipline techniques range from those that are highly teacher oriented to those that are highly student oriented. Indeed, Wolfgang and Glickman (1980) categorized discipline styles as being either non-interventionist, interventionist, and interactionalist.

Non-interventionists believe that children are capable of managing their own behaviors. Non-interventionist teachers take on a supportive and empathetic role, and compromise is a common strategy. Interventionists stress teacher authority and practice behavior modification strategies to conform student behaviors. Rules are established, and consequences are enforced (e.g., via corporal punishment, reinforcement) because the teacher believes that the environment shapes student behavior. Interactionalists combine strategies used by non-interventionists and interventionists. The interactionalist maintains constant interaction between teacher and student, and both must be willing to compromise.

In examining studies that have compared these three teacher discipline styles, one finds conflicting results. Thus, the purpose of this study was to examine characteristics (i.e., gender, ethnicity, age, teaching status, school level, teaching experience, and number of offspring) associated with teachers' views on discipline. Participants were 201 students at a large university who were either preservice (77.0%) or inservice (23.0%) teachers. Findings revealed that older individuals were less interventionist and more non-interventionist than were their older counterparts. Second, those who had the most teaching experience were less interventionist and more non-



interventionist than were their counterparts. Third, inservice teachers were less interventionist and more non-interventionist than were preservice teachers. Fourth, secondary school teachers were more non-interventionist than were elementary school teachers. Implications are discussed. Finally, no differences in interventionism, non-interventionism, and interactionalism were found with respect to gender, ethnicity, and number of offspring.

11:00-11:50 a.m. RESEARCH METHODOLOGY (Training Session) Meeting Room 5

#### IS IT TRUE THAT NOTHING IS QUITE SO PRACTICAL AS A GOOD THEORY?

Scott C Bauer, University of New Orleans

Lewin (1945) observed, "There is nothing quite so practical as a good theory." If that is true, then why do so many educators believe that theory and educational research have little to offer them to guide their professional practice? Is there value in grounding one's research in an established theoretical framework, or in generating new theoretical models?

This interactive training session was designed to promote a dialogue among graduate students and scholars on the perceived gap between theory and practice in education. During the session, the nature of the theory-practice gap was discussed in what are its sources and why does it persist? What is theory to begin with, and what claims are made about its utility for scholarship and professional practice? Finally, is there a gap between theory and practice? What can we, as scholars, do to bridge this gap?

This is an especially important topic of discussion for burgeoning researchers, who on the one hand struggle with the question of selecting a theoretical framework and researchable questions, and on the other hope that their research will have an impact in schools.



## Thursday, November 16, 2000

### 11:00 A.M.

11:00-11:50 a.m. CULTURE (Discussion Session) Salon A

Presider: John Riley, University of Montevallo

CHILDHOOD EXPERIENCES AND TEACHERS' ATTITUDES TOWARD CULTURAL DIVERSITY

Candace H. Lacey, Barry University, and Amany Saleh, Arkansas State University

Even though there is a plethora of studies addressing the topic of multicultural education, there is very little research on teachers' life experiences and how they effect their attitudes and beliefs toward diversity and multicultural education. Indeed, little is known regarding exactly what impact childhood experiences have in shaping the attitudes and beliefs that teachers bring to the classroom and which in turn effect students' learning. This study explored teachers' childhood experiences with diversity as they impacted their present attitudes towards cultural diversity issues including the role of special interest groups, employment opportunities, educational programs, and ethnic/cultural heritage.

A sample of 139 teachers currently enrolled in graduate courses in two major universities was asked to complete three instruments: (1) an adapted version of the Ethnic Attitude Test, (2) an Assessment of Life Experiences, and (3) a brief demographic profile. Results were analyzed using a correlation between the Assessment of Life Experiences inventory and the Ethnic Attitude Test.

Results indicated that childhood experiences with diversity had a statistically significant influence on four current attitudes: (1) the perception of children's attitudes toward diversity, (2) the validity of a mono-culture society, (3) the perception of the United States as a mono-cultural nation, and (4) the perception of the role of ethniccultural-racial studies as they impact special interest groups.

The implications of the findings were discussed, and recommendations were offered to assist in understanding the influence of teacher's personal life experiences with diversity and how these attitudes and beliefs may impact the teacher/student relationship in the classroom.

ASSESSING THE RACIAL AWARENESS OF MAJORITY GROUP MEMBER STUDENTS AT EAST TENNESSEE STATE UNIVERSITY AND THE FACTORS RELATED TO RACIAL AWARENESS

Lavern Terrell and Russell F. West, East Tennessee State University

East Tennessee State University (ETSU) has made a commitment to helping students understand themselves and tolerate and appreciate others. To that end, the purpose of this study was to determine the racial awareness of majority group member students at ETSU and factors related to racial awareness. Seven research questions and five hypotheses were examined.

The Oklahoma Racial Attitudes Survey-Preliminary Form (ORAS-P) was used to identify the racial awareness of white students enrolled at ETSU during fall 1999. Forty-six classes were surveyed, obtaining a sample totaling 395 students.

In addition to completing the ORAS-P, students in the sample were asked the following demographic questions: gender, age, city and state of birth, name and location of high school from which they graduated, race, parents occupation and highest level of education, annual family income, college classification, number of core classes that have a diversity component completed at ETSU, and the nature of contact they have had with someone of a different race. Once the students' racial awareness levels were determined, t-tests and analysis of variance (ANOVA) were used to test for differences between subgroups on the ORAS-P.

Results showed that annual family income and contact with minorities were significantly related to racial awareness while the percentage of minorities in the high school the respondent graduated from and the number of core classes having a diversity component completed at ETSU were not related to racial awareness.

Hierarchical multiple regression was used to determine how effectively the independent variables could predict one's level of racial awareness. Analysis showed that the variables of age, gender, annual family income, and contact (with minorities) were the most significant predictors of racial awareness.

11:00-11:50 a.m. GIFTED EDUCATION (Symposium) Salon B

Presider: Linda W. Morse, Mississippi State University

THE POSITIVE PSYCHOLOGY IN CREATIVITY: THE IMPACT OF PERSONALITY AND COGNITIVE VARIABLES ON DIVERGENT PRODUCTION

Linda W. Morse and David T. Morse, Mississippi State University, and Gregg A. Johns, Mississippi State Hospital

#### Overview

Creativity researchers have called for investigation of how personality and cognitive variables relate to creative behavior and problem solving. This symposium was organized to present findings that, for the domain of divergent thinking, addressed these issues and extended the understanding of aspects of and influences on creative behavior. This symposium included three topics.

All presentations conveyed aspects of a study conducted on 77 volunteer students enrolled in undergraduate courses in Educational Psychology. The mean age was 21.0 yr (SD = 2.6). Most (88%) were female and classified as junior- or senior-level students (61%). Sixteen were African American (21%), 77% were Caucasian, and two represented other ethnic backgrounds.

#### Study 1: Do High- and Low-Creative Students Differ in Risk Taking?

The extent to which risk-taking corresponded to divergent thinking scores, fluency, flexibility, and originality and to scores on the Torrance Tests of Creative Thinking-Figural (TTCT) was examined in two ways. First, Pearson correlations between risk-taking scores, from the Zuckerman sensation-seeking scale, and divergent thinking and TTCT scores were computed. Second, students whose TTCT scores were in the highest quartile locally were compared with those whose TTCT scores were in the lowest local quartile. The two groups were then compared on risk-taking scores. In both analyses, there was no statistically significant evidence of a relationship. The correlations were all low (.19 or less) and nonsignificantly different from zero at the .05

level. The extreme groups comparison (highest, lowest TTCT) also yielded a nonsignificant difference in mean risk taking.

#### Study 2: The Relationship of Metacognition and Creativity

Participants completed a metacognition survey that presented a series of vignettes and posed questions about each one. The metacognition scores were found to correlate with TTCT scores and divergent thinking originality scores at levels that were statistically significantly greater than zero. A multiple regression analysis, forcing prior course work in creativity in first to account for differences in training, also showed that the creativity measures (fluency, flexibility, originality, and TTCT), when added to the regression model, yielded a statistically significant improvement in the prediction of metacognition scores, from R = .27 to .49, F(4, 70) = 3.98, p = .006.

#### Study 3: Verbal Reinforcement and Divergent Production

Is divergent production enhanced by simple instances of verbal reinforcement (e.g., "Great work, keep it up")? Participants were randomly assigned divergent production tasks that either did or did not have verbal reinforcements embedded in two task stimuli. A multivariate comparison of the treatment groups, using TTCT scores as a covariate, was run. Though the differences on overall fluency, flexibility, and originality scores were all in the predicted direction, the effect sizes were all small (.20-.25) and did not result in statistically significant differences, F(3, 71) = 1.08, p = .36.

#### **Audience Participation**

Sample divergent thinking tasks were used to acquaint those attending with the types of creative behavior and scoring rubrics used. In addition, discussion of the findings and implications of the studies was encouraged.

11:00-11:50 a.m. TECHNOLOGY (Discussion Session) Meeting Room 1

Presider: Rod Roth, The University of Alabama

A LEADER'S REFLECTIONS: TECHNOLOGY RESOURCES AND USE AT AN ELEMENTARY SCHOOL

Debra Hildreth, Rock Quarry (AL) Elementary School, and Vivian H. Wright and Margaret L. Rice, The University of Alabama

This discussion presented one leader's reflections on technological resources and teachers' use at an elementary school. Following a three-year longitudinal case study, which included teacher assessments of technology use and planned interventions, the data offered many opportunities for reflection and helped to target weaknesses and strengths of teachers using technology in teaching and learning.

The schused in the study is an elementary magnet school located in a city in Alaa. The participants in the study were administrators, faculty, and staff at the school. Assessments were conducted at the beginning of the school year. The same assessments were conducted at the end of the year. These assessments included: (1) discussions with

the principal to develop a summary of resources available to teachers and students, (2) administration of a researcher developed instrument called the Media Use Survey, and (3) administration of a researcher developed instrument called the Basic Computer Knowledge Test. Interventions were implemented between the assessments.

The session presented an outline of the study, and results of this longitudinal study, and offered suggestions about how a leader can proactively anticipate trials and successes and plan for future use of technology in teaching and learning.

#### INNOVATIVE USES OF THREADED DISCUSSION GROUPS

Yardley S. Bailey and Vivian Wright, The University of Alabama

Institutions of higher education throughout the United States and abroad are focusing on the installation and use of instructional technology in classroom settings. An emerging trend is the use of integrated web packages like FrontPage, Blackboard, and WebCT. One prominent feature of these packages is threaded discussion groups. This presentation will centered on case studies about how faculty from various disciplines has discovered innovative ways to use discussion groups.

In a discussion group, an index contains hyperlinks to an area of interest submitted by a user. A response to a previous posting creates a hyperlink to the new article that is indented below the original. All articles are available through the index and can be arranged according to the date posted or subject. The participants in the study used threaded discussion groups extensively and have expanded this tool in novel ways to enhance their teaching and their students' learning.

This study examined how faculty used threaded discussion groups through the qualitative collection of data. Each participant was asked a set of specific questions, derived from the literature and personal technological experiences of the researchers. Their responses were analyzed to see differences and/or similarities based on discipline, academic rank, and overall teaching philosophy. Novel uses of the format were analyzed and highlighted to discover exactly what makes this use different and effective.

Research has shown that students who participate in integrated lessons using discussion groups as a component engage in more constructivist learning and exhibit "deeper" thought through written discourse. It has also been shown that students who typically do not participate in traditional classroom discussion tend to participate more in threaded discussion groups. The findings from the study would be useful to college educators in all disciplines.

## HOW ONE THIRD-GRADE TEACHER INTEGRATES TECHNOLOGY INTO THE CURRICULUM: A QUALITATIVE STUDY

Anissa Harris and Bob Cage, University of Louisiana at Monroe

Modern educators and legislators banter endlessly regarding the praxis, structure, and curriculum of American schools. Arguments surface daily regarding the most effective teaching methods, the best testing strategies, accountability, and a myriad of other choice topics. One possible change-agent currently under public and professional scrutiny is the integration of technology into the classroom. Although some are convinced that technology integration is a mere fad (Cuban, 1993; Kimmel & Deek, 1995), others have found that creatively applied technology partnered with sound theoretical structure can positively affect both teacher and student outcomes (Pedretti, Mayer-Smith, & Woodrow, 1999). Following an overview of technology integration, this paper examined specific classroom activities that integrate technology into the

curriculum using the "hands-on/minds-on" approach and suggested that appropriate planning can create many educational benefits for students. The purpose of this study was to qualitatively examine and evaluate the integration of technology into the curriculum by one third-grade teacher in a north Louisiana elementary school. The data, gathered by interviews, observations, and document analysis, present student and teacher attitudes toward this integration process. This study implied that creative classroom activities initiated by changing individual teaching paradigms and a genuine concern for teaching, sharing, and changing lives can substantially affect student learning behaviors and participation when technology is integrated into the curriculum.

11:00-11:50 a.m. STATISTICS (Discussion Session) Meeting Room 2

Presider: Diana Gardiner, LSU School of Dentistry

#### TOWARDS AN EXTENDED TYPOLOGY OF RESEARCH ERRORS

Larry G. Daniel, University of North Florida, and Anthony J. Onwuegbuzie, Valdosta State University

The paper proposed a new typology for understanding common research errors and focuses on: (1) review of Type I and Type II errors, (2) explanation of the oft-forgotten Type III and Type IV errors, and (3) recommendation that six additional types of error be added to this typology. Examples were presented to illustrate Type I and Type II errors, with attention given to simultaneous control of both types of error. Next, an explanation of typical errors that fall into the Type III (incorrect inferences about result directionality) and Type IV ("effects error") categories was offered along with examples of erroneous conclusions researchers draw when committing these errors.

Finally, six additional types of error were discussed and codified: (1) Type V error-internal replication error-measured via incidence of Type I or Type II errors detected during internal replication cycles when using methodologies such as the jackknife procedure, (2) Type VI error-reliability generalization error-measured via linkages of statistical results to characteristics of scores on the measures used to generate results (a particularly problematic type of error when researchers fail to consider differential reliability estimates for subsamples within a data set), (3) Type VII error-heterogeneity of variance/regression-measured via the extent to which data treated via analysis of variance/covariance are not appropriately screened to determine whether they meet homogeneity assumptions prior to interpretation of group comparison statistics, (4) Type VIII error-test directionality error-measured as the extent to which researchers express alternative hypotheses as directional yet assess results with twotailed tests, (5) Type IX error-sampling bias error-measured via disparities in results generated from numerous convenience samples across a multiplicity of similar studies, and (6) Type X error-degrees of freedom error-measured as the tendency of researchers using certain statistical procedures (chiefly stepwise procedures) to erroneously compute the degrees of freedom utilized in these procedures.

## A PRIMER ON UNIVARIATE AND MULTIVARIATE REPEATED MEASURES DESIGNS AND THE SPHERICITY ASSUMPTION

Stephen C. Kogos, Jr., University of Southern Mississippi

Change over time is a fundamental issue in many research contexts. Often, experiments are carefully designed to allow evaluation of change in a dependent

variable(s) in regard to manipulated independent variables. However, true experiments require random assignment of multiple subjects to treatment conditions. In many cases, this requirement is either impossible or not feasible.

Repeated measures designs provide an alternative to the true experiment in such cases. These designs, often called "within subjects" designs, examine the impact of different levels of some independent variable on the dependent variable for a single group of persons. A primary advantage of repeated measures designs lies with the need for fewer subjects in the study to obtain the same level of statistical power as regards treatment effects. Since the same subjects are used in each treatment condition, the variance attributable to subjects can be partitioned out of the error term, resulting in more power against Type II error.

Despite the apparent advantages of these designs in some educational and psychological research, appropriate implementation of the methods demands that researchers be aware of the fundamental methodological issues surrounding their use. In particular, univariate repeated measures designs require the sphericity assumption. In contrast, the multivariate repeated measures approach treats responses at each treatment condition as separate variables and does not require that sphericity be met.

The paper presented an overview of both univariate and multivariate repeated measures designs. Advantages and disadvantages of each approach were also considered, including discussion of the sphericity assumption and methods to correct for violation of this important prerequisite in the univariate repeated measures case. Finally, suggestions for incorporating these statistical procedures into counseling psychology research were offered. A hypothetical data set was utilized to illustrate the methods and to make the discussion concrete.

## DETECTING AND DEALING WITH OUTLIERS IN UNIVARIATE AND MULTIVARIATE CONTEXTS

Bettie Wiggins Barrett, The University of Southern Mississippi

The recent report from the APA Task Force on Statistical Inference (Wilkinson & TFSI, 1999) contained a strong recommendation for researchers to spend increased time and effort in examining their data prior to submitting it to substantive analyses. The Task Force argued for more emphasis on graphical examination of data as well as for data screening procedures. Important in any data screening process are steps to detect whether outliers exist in one's data set. In keeping with the recommendations of the APA Task Force, researchers are encouraged to always examine whether outliers exist in their data and to make thoughtful decisions regarding how to then deal with these data points.

Outliers may be considered as extreme data points that exert strong influence on statistics. It is important to note, however, that the same data point may have differential impact depending on which statistic is examined. For example, a point in a bivariate scatterplot may be considered atypical and heavily influence the mean of one of the variables (e.g., X). However, the plotted point may fall exactly on the regression line and actually help the R2 value. As such, the detection of outliers must invoke the context of the current study and the statistic that is of current interest.

Many procedures are available to allow researchers to detect outliers in univariate and multivariate contexts. In light of the APA Task Force recommendation and in line with good research practice, the paper presented an overview of the need for data screening procedures along with the many reasons outliers may exist in a data set (including the legitimate inclusion and expectation of extreme points given asymptotic distributional assumptions). The paper provided a user-friendly treatment of various methods that researchers may employ in both detecting and dealing with outliers.

#### 11:00-11:50 a.m. READING (Display Session) Meeting Room 4

## THE USE OF REFLECTIVE BOOKMARKS TO ASSESS CONTENT-AREA READING STRATEGIES

Carolyn P. Casteel, University of South Alabama, and Bess A. Isom, University of Mobile

Current perspectives about how comprehension should be taught emphasize learning a repertoire of strategies. Students need to be able to apply multiple strategies for interpreting, evaluating, and appreciating a broad range of text. This need is especially great when considering content-area reading material. Helping students develop and apply strategies within an interactive context calls for an adjustment in roles for teachers and requires assessment methods that are congruent with instructional emphases on strategic, student-centered processing of text.

This observational study systematically analyzed elementary students' responses to content-area reading through the use of reflective bookmarks, i.e., individual bookmarks on which students were encouraged to interact with text while reading. Responses were analyzed according to a framework which included the following main headings: using prior knowledge, literal thinking, inferring, seeing relationships, personal connecting, organizing, summarizing, imaging, defining, valuing, and self-monitoring. Thirty participants were randomly selected from a pool of third- to eighth-grade students enrolled in a university reading clinic. At the onset of the study, use of the bookmarks was first explained and then modeled for each participant. Bookmarks were collected three times during a four-week period.

Results indicated that reflective bookmarks can serve as a useful authentic assessment for observing how students of different ages apply content-reading strategies; the bookmarks are an unobtrusive means of identifying instructional strategy needs by gaining insight into how students are processing the content. Reflective bookmarks can also provide a record for students and can be used as a basis for self-evaluation and for evaluative interviews between teachers and students.

### PRESERVICE TEACHERS' BOOK CHOICES: DOES DOMINANT INTELLIGENCE INFLUENCE SELECTION?

Lynda R. Frederick and Rebecca McMahon, University of South Alabama

Intelligence is ined as the "ability to find and solve problems and create products of value in one's culture" (Campbell, 1992, p. 197). Howard Gardner states that people have "different strengths and contrasting cognitive styles" (Gardner, 1993, p. 6), indicating that there are dominant intelligences and dormant ones. Rather than promoting a single multiple intelligence approach, Gardner (1999) suggests that if differences among students are valued and taken seriously, that it should have implications for how material is presented to students. Although Gardner (1997) recognizes that "MI is not a quick fix" (p. 20), considering the multiple intelligences when establishing that a classroom library may positively influence students' interactions with and responses to literature, thus creating meaningful connections and deeper understandings. This study investigated the relationship between preservice teachers' dominant intelligence(s) and picture book preferences.

Approximately 100 preservice teachers responded to the quiz "Where Does Your True Intelligence Lie?" (NEA, 1996) for the purpose of determining their dominant intelligence(s). Each respondent also reviewed and ranked 21 picture books, chosen to represent each of the seven originally identified intelligences (Nicholson-Nelson, 1998), according to personal preference. In addition, participants provided a

written explanation for their first and last choices.

Completed instruments were individually analyzed by two researchers for the purpose of identifying correlations between intelligences and book choices. Following a collaborative analysis of the researchers' notes, tentative findings were formulated. Tentative conclusions were drawn, and attempts to verify conclusions included comparison of initial findings to results of a second, similar sample (n=40). Findings of this study suggested valuable implications for classroom practice.

11:00-11:50 a.m. PROFESSIONAL DEVELOPMENT (Training Session) Meeting Room 5

#### HOW TO PREPARE EFFECTIVE CONFERENCE PRESENTATIONS

Donna Pascoe, Jennifer M. Good, and Susanne MacGuire, Auburn University

The scope of this training session was to provide graduate students with the opportunity to learn how to organize and present papers at regional and national conferences. Often, graduate students are expected to complete particular professional development activities in partial fulfillment of degree requirements; however, they frequently do not receive the guidance necessary to complete these tasks. Hence, the purpose of this training session was to allow graduate students the opportunity to discover effective methods to complete professional research presentations. Specifically, the session allowed participants to actively practice and critique presentations for roundtables, poster sessions, and discussion.

Objectives of the session included: (1) understanding and verbalizing the differences between roundtable, discussion, and poster presentations, (2) critiquing examples of notes/overheads from different roundtable, discussion, and poster presentations, and (3) developing ideas for overhead and outlines which would be appropriate for presentation.

Participants responded in writing to the following prompt, "After attending various presentations this week, which have been effective? Why?" Responses were discussed in groups. A guided discussion with overheads of characteristics of an effective presentation was held. Each trainer gave a brief overview (with overheads) of the three common presentation modes: poster presentation, paper presentation, and roundtable. The trainer role-modeled an abbreviated presentation. Participants completed a rating form and discuss the presentation's strengths and weaknesses. With a partner, participants created at least five ideas for overheads and outlines in response to a brief research scenario. Volunteers presented and discussed their outlines with others. Participants reflected in writing on the following prompt: "What have you learned about presentations? What will you do differently as you approach your next presentation? What other information would you like to know regarding effective presentations?" Responses were discussed at the end of the training session.



# Friday, November 17, 2000

### 11:00 A.M.

11:00-11:50 a.m. GENDER ISSUES (Discussion Session) Salon A

Presider: Anisa Al-Khatab, Eastern Kentucky University

GENDER EQUITY IN SCHOOL: ARE WE THERE YET?

Michele Kahn, The University of Alabama

Gender inequity in our schools has long been the topic of discussion in educational literature. Over 20 years of research has confirmed the disparities in achievement, performance and self-esteem between boys and girls. Recent large scale studies reveal that although some improvements have been made, boys and girls still show divergence in: (1) testing, (2) representation in instructional materials, and (3) levels of self-esteem, and (4) are treated in differently by their teachers.

Girls: (1) lag behind boys in most standardized tests, (2) are practically absent from textbooks and other instructional materials, (3) are more suicidal and at a higher risk for eating disorders, and (4) receive less attention than boys in their classes. These extreme differences can only contribute to the sure failure of girls in school.

Teacher education programs play a necessary and important role in the training of teachers with gender equitable skills. However, recent studies centered on teacher education programs revealed that the inclusion of gender equitable matters was practically insignificant. Teachers and other participants in the school community such as administrators and counselors need to be informed about curricular and instructional matters regarding gender equity. Teacher education programs can have a positive effect towards increasing gender equitable practices in schools. Teachers who are uninformed about the status of girls in school may unwittingly contribute to their failure.

#### NONTRADITIONAL, NONGENDER STEREOTYPED EXPERIENCES: DO THEY MAKE A DIFFERENCE FOR YOUNG WOMEN?

Beth H. Hensley, The University of Memphis

Various marginalized groups, including women, have looked to education as a means of achieving social and economic parity. Even with the much heralded changes toward greater gender equity and equal employment opportunity for females, there has been minimal transformation of gender stereotyped careers and few significant economic gains for women. In the United States, 95% of the senior managers in the 1,500 largest companies are males, and women earn approximately 73 cents for every dollar earned by men doing the same or similar jobs. Educators and researchers must wonder why these inequities persist, and how could education make more of a difference in women's career choices.

A feminist epistomology was used as a theoretical foundation for this research project: (1) taking a stand for questions that are important to women, (2) collaborating with women to design research that is meaningful to them, and (3) examining the real lives of real women to explore possible answers. Theories of vocational gatekeeping, and achievement also frame the analysis of the descriptive data.

The participants were 17 women who had participated in a nontraditional, nongender-stereotyped work experience during adolescence or young adulthood. These women played professional baseball in the All American Girls Professional Baseball League during the 1940s and 1950s. Life history interviews were conducted with two of the 17 participants and focused interviews were conducted with the remaining 15 women.

Utilizing constant comparative method of analysis, the data revealed that a nontraditional, nongender-stereotyped experience had an impact on the educational and career choices made by the participants. There were implications for vocational counseling and creating nontraditional educational and vocational experiences for students even within traditional, gender stereotyped fields.

11:00-11:50 a.m. HIGHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Vincent McGrath, Mississippi State University

AN EVALUATION OF KEYWORDS ADDRESSED IN JOURNAL ARTICLES ON THE EDUCATIONAL RESOURCES INFORMATION CENTER DATABASE

Naomi C. Coyle, Centenary College

The purpose of the study was to investigate the board range of education-related topics and issues and to determine which topics and issues were most and least prevalent during the last five years of this century. The results of the descriptive study provided information for those who desire to enter the ranks of the published.

ERIC was chosen as the source of education topics and issues because it is the largest database in the field of education in the world and is the most-well known and frequently used body of information with close to one million citations and abstracts. The researcher conducted a review of literature concerning ERIC and contacted AskERIC, an Internet-based question-answering service on education. After collecting data from these sources, 26 keywords were identified. The ERIC Search site was utilized to locate the total number of articles for the past five years for each keyword. A percentage of the total number of articles for each keyword was calculated.

Based upon the data collected, the researcher concluded that the most prevalent keywords for journal articles included in ERIC from 1995-1999 were higher education, teaching, evaluation, information, and language. The least prevalent keywords were identified as career education, student services, gifted education, educational management, social science education, and urban education. The findings of this study reported the pattern for the identified keywords related to educational topics and issues that has occurred for the past five years.

#### FACULTY PARTICIPATION IN GOVERNANCE: A FOUR-YEAR LONGITUDINAL STUDY

Jack Blendinger, Linda Cornelious, and Vincent McGrath, Mississippi State University

This qualitative case study reported experiences in shared governance at a college of education over a four-year period (1996-2000). Initial experiences in shared governance was first presented at the 1997 annual meeting of the Mid-South Educational Research Association (MSERA). This paper chronicled four years of experience and represented the only longitudinal study on the topic of shared governance in colleges of education reported in the literature.

Establishing shared governance has been a disappointing quest. Early exuberance evolved into apathy and then into pathos. Benign indifference, high turnover of faculty, and a drawn-out process of restructuring the college complicated matters and retarded progress. After a fast start, the movement steadily declined. Promise of gaining momentum slowly faded.

In addition to bylaws, shared governance as reported in this case study has been guided by a faculty council, a representative body comprised of professors and research scientists selected by academic departments and research units. The council emerged in 1996 as the primary mechanism to implement shared governance. Capitalizing on the need for shared responsibility in governance, the faculty members who were elected to the council moved rapidly to make it a viable means for participating in the decision-making process and facilitating communication. Unfortunately, little success has occurred.

Data collected over a four-year period from artifacts such as operational guidelines, memoranda, minutes, reports to the dean, and faculty surveys were shared with those attending the session. Participants attending the session were invited to share their own experiences and become partners in an on-going research project chronicling shared governance in colleges of education.

11:00-11:50 a.m. MOTIVATION (Discussion Session) Meeting Room 2

Presider: Barbara Kacer, Western Kentucky University

SAMANTHA, MATTHEW, AND SHANE: A CASE STUDY OF THE MOTIVATIONAL FACTORS THAT DRIVE THESE TRIPLETS TO LEARN

Julie A. Holmes, Louisiana Tech University/ Lincoln Parish (LA) Schools

The purpose of this qualitative case study was to determine the motivational factors that prompted a set of triplets to excel in school. These three children were observed to be outstanding students as compared to other students in terms of their participation in school, the quality of their work, and their continual enthusiasm to learn. The working research questions dealt with different facets of school and home, whether motivation was linked to a certain subject, certain topics within various subjects, or high demands from their parents. These questions were refined as participant observation revealed subtle differences in motivation in the three children, which became the focus of the study.

A review of literature showed major themes of motivation appeared to be related strongly to intrinsic goals. Being intrinsically motivated was shown to improve self-concept and academic achievement. Various people in the child's life and the viewpoint of achievement by the child are other contributing factors in motivation.

Data were collected through participant observation, semi-structured interviews with the triplets and other key informants, solicited documents, and samples of work done by the triplets. Data were coded and sorted into eight categories.

The results showed that within a shared basic framework of self-motivation, each of the three children developed separate, distinct "motivational personalities." The parents had provided a wide variety of activities early in life that were perceived to be enjoyable. Positive self-concept and intrinsic motivation were evident in all three children. Each child had varying reasons for motivation: wanting perfection motivated one, interest motivated another, and one was motivated by wanting to please others and be noticed. A collective case study was recommended of children of multiple births to inquire further into the phenomenon of motivation.



Sandra M. Harris, Troy State University, Montgomery

As technological advancements increase the demand for an educated work force, educators struggle to develop ideas on how to attract more individuals into higher education and how to retain them after they enter the system of higher education. The purpose of this study was to investigate the factors that motivate individuals to pursue higher education. The researcher used the literature-based, researcher-developed Factors Influencing Pursuit of Higher Education (FIPHE) Questionnaire to determine, quantitatively, what those factors are. The FIPHE Questionnaire contains 10 scales that address factors thought to impact a person's decision to pursue higher education. Several of the items in the questionnaire address family variables such as mothers, fathers, brothers, and sisters.

The sample consisted of 509 participants from two southeastern universities. Reliability estimates for the scales ranged from .66 to .90. Principal component analysis using varimax rotation was used to factor analyze the data. While 10 factors were specified in the extraction criteria, results revealed that a nine-factor solution was as effective in defining the data. A nine-factor solution accounted for 43% of the common variance in the data. Consequent to the factor analysis, the items regarding sisters merged on a separate scale, which the researcher named Sister's Influence Scale. A post hoc reliability analysis revealed a coefficient alpha of .81 for the scale. In addition, a correlation analysis showed that the scale was significantly correlated with nine of 19 other measures of interest. The significant correlation coefficients ranged from .19 to

The researcher concluded that although not hypothesized as an original scale, the Sister's Influence Scale is a valid and psychometrically sound scale that warrants further investigation. The researcher also concluded that Sisters might be pivotal forces not only in terms of encouraging individuals to pursue higher education, but also in persisting after doing so.



# Wednesday, November 15, 2000

### 1:00 P.M.

1:00-1:50 p.m. EDUCATION REFORM (Discussion Session) Salon A

Presider: Evelyn White, Tennessee State University

A NATION AT RISK

Douglas Masini and Gunapala Edirisooriya, East Tennessee State University

The 1983 report, A Nation At Risk, catapulted teaching and learning issues into the consciousness and educational foreground of every parent, teacher, administrator, and legislator in America. Many lessons were learned from the hundreds of articles, books, and studies generated by the controversial work and methods of the Excellence Commission on Education.

However, in spite of the findings of the Excellence Commission, American students and college graduates continue to fare well when their knowledge is tested post-graduation, and there is no evidence of a direct economic impact due to the purportedly declining standardized U.S. student and adult tests scores. Adult Americans continue to fare well when their scores on tests of literacy are pitted against other industrialized nations. Demographically, the minority populations continue to gain strength in standardized test scores of reading, prose, and mathematics.

This paper analyzed the research on education and the relationship between economics and education. This paper firmly established that in regard to education, literacy, and economics, the United States was never a nation at risk.

#### THE POTENTIAL IMPACT OF PROFESSIONAL DEVELOPMENT: A COMPARATIVE ANALYSIS OF THE IMPLEMENTATION OF SCHOOL REFORM MODELS

Robert A. Horn, The University of Memphis

In April 1983, The National Commission on Excellence in Education presented the report, A Nation at Risk, to which Congress continues to respond. In November 1997, Congress allocated funds to states for school improvement. The Obey-Porter legislation initiated the Comprehensive School Reform Demonstration Program, allocating grants for schools to implement comprehensive school reform programs, which must meet nine criteria.

Criterion three deals directly with professional development training and support. Criterion five requires program support from school faculty and administrators. These two criteria were this study's focus. Research has indicated that professional development is crucial to the success of school reform. This comparative analysis examined the implementation of five Comprehensive School Reform Models, focusing on the potential impact of professional development and program support.

Data for this study were from Comprehensive School Reform research conducted as part of a large-scale national formative evaluation project. The Comprehensive School Reform Teacher Questionnaire was used to obtain this study's data. The professional development scale from the questionnaire consists of four items addressing elements of the professional development criteria. An additional item from the questionnaire addressed school support for the selected model, which provided

correlational analysis of the schools and models. Qualitative analysis consisted of openended responses to positive and negative aspects of the school's comprehensive school reform program.

Initial review of the data indicated differences between reform models in implementation and support. Results indicated professional development training for different school reform models, as perceived by teachers, varied strongly between models. Correlational data analysis indicated a strong positive relationship between teachers' supported of program and their perception of professional development training within their respective reform models. Qualitative data analyses support these results. Findings indicated a need for cautious evaluation by schools in selecting school reform models

1:00-1:50 p.m. TEACHER EDUCATION (Symposium) Salon B

Presider: Cynthia Gettys, The University of Tennessee at Chattanooga

ALTERNATIVE CERTIFICATION PROGRAM: A COLLABORATIVE EFFORT BETWEEN THE HAMILTON COUNTY DEPARTMENT OF EDUCATION AND THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA

Cynthia M. Gettys, The University of Tennessee at Chattanooga

The Vision: Establishment of Need of the Alternative Certification Program Mary P. Tanner and Thomas E. Bibler, The University of Tennessee at Chattanooga

The Action: Planning & Development of the Alternative Certification Program Cynthia M. Gettys and Kathleen S. Puckett, The University of Tennessee at Chattanooga

The Teaching Team: Planning & Teaming
Jane T. Browner and Cynthia M. Gettys, The University of Tennessee at Chattanooga

The Collaboration: Partnership & Implementation of the Alternative Certification Program Lonita D. Davidson and Joyce E. Hardaway, Hamilton County (TN) Department of Education

The Goal: Urban Impact Bonnie Warren-Kring and Diane Riddle, The University of Tennessee at Chattanooga

The Evaluation: Cohort I Participants Evaluate the Alternative Certification Program

Kristen Childs, Debbie Donohoo, and Callievene Stewart, Cohort I Alternative Certification Participants and Hamilton County (TN) Department of Education Teachers

Early in the 1980s the National Center for Education Statistics (NCEI) erroneously predicted a dramatic shortage of teachers by 1992. States began to look for ways to certify more teachers more quickly than the typical four-year undergraduate teacher education program. By 1997, 41 states, plus the District of Columbia, reported having some type of alternative teacher certification program to the NCEI that has been polling the state departments of education annually since 1983 regarding teacher education and certification. States reported a total of 117 different programs available for persons who already hold a bachelor's degree and want to become licensed to teach.

The search for an alternate route to certify teachers has generated ideological

debates revolving around educational quality. Supporters of traditional teacher certification argue that to improve the quality of education it is imperative to ensure that both professional knowledge and subject-matter competency are grounded in a solid foundation of pedagogical training. It is also necessary to ensure that alternative certification programs are context-specific experiments designed to meet policy goals, such as attracting talented career changers or filling teacher shortages, but are not necessarily substitutes or competitors to traditional teacher education programs.

Since the fall semester of 1998, a committee made up of university faculty and local school system administrators has collaborated to design an Alternative Certification Program to specifically meet the teacher shortage needs of the Hamilton County (TN) Schools. The areas of identified teacher shortages include Science, Math, and Foreign Languages at the middle and high school levels and Special Education at all levels K-12.

The collaboration was successful with the selection of 12 individuals in May 1999 who formed the first cohort group for the 1999-2000 school year. Seventy-five percent of the first cohort group completed their first year of teaching on June 1, 2000 and have signed contracts committing to return to their classrooms for a second year. The second cohort group of 22 individuals was formed early in May 2000 and began their class work for the Alternative Certification Program on May 10 in preparation for the 2000-2001 school year.

This symposium chronicled the need for an Alternative Certification Program, initial planning and development of the program, a university teaching teams reflections, the relationship of the partnership, the proposed urban impact, and concluded with a self-evaluation by the first cohort participants. The collective papers formed a case study that told an ethnographic story while sharing each stage of collaboration. The recorded voices were active participants from the university and the local education agency as well as the initial cohort group who became the alternatively certified teachers. The stories were gleaned from field notes stored in file folders and in reflective journals.

#### 1:00-1:50 p.m. EDUCATION AND THE MEDIA (Discussion Session) Meeting Room 1

Presider: Barry Schultz, Baptist College of Health Sciences

### TRENDS IN HOW FAMILIES ARE PORTRAYED IN CHILDREN'S LITERATURE FROM THE 1950'S TO THE 1990'S

Patrick N. Kariuki and Carmen E. Harris, Milligan College

The purpose of this study was to examine how the family has been portrayed in children's literature from the 1950s to the 1990s. Five sample books from each era (1950s, 1960s, 1970s, 1980s, 1990s) were randomly selected from the collection of children's literature books from one major university, two colleges, and three public libraries. The sample books were examined for content and illustrations. Data on how the family was portrayed were recorded and compared to establish the trends.

The results indicated that the family has moved from traditional to a variety of life-styles. Other types of families have surfaced including divorced or single-parent homes, blended families, ethnic families, same-sex families, and extended families. However, the traditional family is still in the majority. Other issues pertaining to the family have included AIDS (cause and effect), inter-city housing, and death of a family member or friend. This study suggested that parents should be aware of the trend changes in the way children's literature has been portrayed for the past five decades. Controversial trends should be discussed, and the emotional impact should be addressed.

## EFFECTS OF THE MEDIA IN THE SOCIAL CONSTRUCTION OF SELF AT VARIOUS STAGES OF A CHILD'S DEVELOPMENT: A LITERATURE REVIEW

Elizabeth Simpson and Glennelle Halpin, Auburn University

Symbolic modeling via the media is playing an important role in shaping children's images of who they are and how they fit into the world. They are still moving through the same developmental stages identified by the classical theorists; however, the new symbolic means for transferring social and cultural information have served to increase the speed of the process enormously. Currently, the developmental literature speaks to a new theory of the child, one of developmental compression brought on by exposure to cultural symbols and information that was previously unavailable to those who were not able to interpret the symbolic language of the written word.

The psychological principle of literacy, symbol acquisition in order to access knowledge, is currently being redefined because of the revolution in the mode of conveying symbolic information. Children from birth to 18 years old are exposed, by some accounts, to an average of seven hours of television a day. Television programming is being designed by the broadcast industry to target specific age groups in an effort to convey knowledge. Children are also gaining knowledge from programming not designed specifically for them due to their ability to interpret and attach meaning to the symbols and information presented. Examined in this literature review were the classical theories of Piaget, Bandura, Vygotsky, and Bruner as they speak to the acquiring of knowledge and construction of self through the interpretation of symbols as well as the latest research in the area of child development and the media. Educators need to have an understanding of the power of the media symbols to shape the sociocultural environment the child is experiencing, as well as the child's response to such an environment in order to ensure healthy development.

#### THE TEACHING PROFESSION AS PORTRAYED IN POPULAR FILMS

Paige L Tompkins, Western Kentucky University

This qualitative study was conducted to identify and categorize the characterization(s) of teachers presented to the public via popular films. The researcher asserted that at the least, the public is exposed to these portrayals, while it is possible that public perception of teachers is actually, and perhaps almost entirely, shaped and influenced by them.

Most of the findings presented in the study were the result of the researcher's direct observation of numerous films in which prominent characters were teachers. For films unavailable to the researcher, secondary sources were used.

Each film was analyzed using a variety of qualitative methodologies to identify emergent patterns and trends. The prevalent patterns that surfaced in the popular media's characterization of teachers were then organized into several distinct categories, ranging from extremely negative to almost superhuman, each of which were discussed in the study. Implications for education suggested by, and addressed in, the study included the following: (1) public support for education funding, (2) the attractiveness of teaching as a profession, (3) the public image of teachers and schools, and (4) education and professional expectations of teachers.

1:00-1:50 p.m. EVALUATION (Discussion Session) Meeting Room 2

#### Presider: Kathy Hulley, Lincoln Memorial University

#### FOCUSING ON FOCUS GROUP USE IN EDUCATIONAL RESEARCH

Michele G. Jarrell, The University of Alabama at Birmingham

The use of focus groups has become widespread in the last decade, particularly in business and industry, but a focus group can be of tremendous use to the educational researcher. Focus groups have been used in qualitative research with good results. With effective planning, valuable information and feedback can be obtained in the development process for surveys, questionnaires, and even test items. Knowing a few simple steps to follow while setting up the focus groups can make the process very worthwhile.

This presentation outlined the main steps necessary to put the focus on obtaining valuable input from the focus group, for example, establishing the purpose of the group, selecting and training a moderator, choosing the participants with care, and summarizing the data. As with all research, designing the focus group is of utmost importance. Attention to the details of planning the focus group will improve the quality of data obtained from the group. Conducted properly, the focus group can provide immediate and representative feedback.

An example illustrated the use of the focus group to aid the researcher in designing surveys for use by both students and teachers in a statewide study.

#### THREE YEARS OF GRADUATION 2010: EVOLUTION OF AN EVALUATION PLAN

Gayle W. Ecton, Antony D. Norman, and Mary H. O'Phelan, Western Kentucky University

Drawing on recent research in brain development, the public school district in Daviess County, Kentucky has developed a comprehensive program with the purpose of increasing students' capacity for learning and achievement. The program, called Graduation 2010, was conceived by educators and members of the community during 1997 and is in its third year of implementation. The eight components of the program include four "strands" intended to enhance learning (music, the arts, foreign language, and thinking skills), and another four strands intended to reduce barriers to learning (reading/language development, parent involvement, health/emotional health, and community involvement). The authors are serving as the evaluation team to document the program's implementation and progress over the years.

This paper briefly described the background and components of Graduation 2010, the original evaluation plan as formulated by the research team and the project steering committee, some of the challenges and problems encountered with implementing the evaluation plan during the first three years of the project, and the description of a modified evaluation plan adopted for the future. Changes in the research plan as a result of realities of real world evaluation were described and discussed. The audience were encouraged to participate and share ideas on school-based evaluation. Abbreviated results of surveys, observations, and teacher interviews during the first three years were included.

#### EVALUATION OF THE RENAISSANCE PROJECT FOR IMPROVING TEACHER QUALITY

Marcia R. O'Neal and James E. McLean, University of Alabama at Birmingham, and Roger Pankratz and James Craig, Western Kentucky University

The Renaissance Group is a national consortium of 16 colleges and universities with a major commitment to improving teacher education. Ten of those institutions in nine states, in collaboration with their schools of arts and sciences and their partner schools, have engaged in a five-year project to reform their teacher education programs. The major goals of the project include: (1) becoming accountable for the impact of teacher education graduates on student learning, (2) linking teacher performance to student learning, and (3) increasing the capacity of teacher candidates to facilitate learning of all students.

The goals are to be achieved by employing six strategies with a set of core elements common to all ten institutions. These strategies include the development of an accountability system, the use of teacher work sample methodology and mentoring teams, the creation of business partnerships, the establishment and maintenance of a web site and an electronic communication network, and the dissemination of research related to the project and its goals. Beyond the common core of elements, institutions will implement the project in ways that are consistent with the ways they operate.

The project includes a comprehensive evaluation component that responds to the unique character of the program. A number of process and product components are part of the evaluation plan, which was designed to satisfy requirements of the funding source, as well as the needs of the partner institutions as they make decisions about program success and modifications in program design. Techniques include document analysis, site visits and observations of project activities, surveys and interviews, and use of archival data available at each institution. This paper contained a presentation of the evaluation design and results of analyses completed to date.

1:00-1:50 p.m. SCIENCE EDUCATION (Display Session) Meeting Room 4

#### SCIENCE ADVENTURES FOR GIRLS: FOSTERING POSITIVE ATTITUDES

Jan E. Downing, Eastern Kentucky University

At the beginning of the 21st century, women remain a minority in scientific disciplines. Though few programs exist to encourage and recruit young women in science, they generally focus on girls at the high school level. However, it is during the middle school years when children first seriously consider career choices and options. Girls' attitudes toward science are generally less than positive. Negative science-related attitudes have been attributed to past science experiences.

The Science Adventures for Girls Program was designed to celebrate women's achievements in science and to provide positive learning experiences for girls who have expressed an interest in science and science-related careers. Approximately 25 middle school girls participated. Pretests and posttests were administered to assess participants attitudes toward science before and after the Science Adventures for Girls Program. A description of the program and results of the attitude assessment is included in the display. The program was funded through a grant provided by Eastern Kentucky University.

### SCIENCE PROCESS SKILLS AND ACHIEVEMENT IN RESEARCH METHODOLOGY COURSES

Denise A. DaRos, Youngstown State University, and Anthony J. Onwuegbuzie, Valdosta State University

Graduate programs in the fields of social and behavioral sciences typically

include required courses in research methodology. Unfortunately, many students find these courses to be extremely difficult, experiencing lower levels of performance in these classes than in other courses in their programs of study. Yet, as noted by Onwuegbuzie, Slate, Paterson, Watson, and Schwartz (in press), little is known about the characteristics of students who experience the most difficulties in these classes. However, recent evidence suggests that certain learning styles and study habits are better predisposed to understanding research concepts. These findings, together with the fact that research involves application of the scientific method, suggest that students who demonstrate science process skills may be at an advantage in courses in research methods. However, to date, this link has not been investigated. Thus, the present study investigated the relationship between graduate students' competency in science-process skills and their conceptual knowledge of research concepts, methodologies, and applications.

According to Carin and Sund (1989), the necessary science-process skills include generating models, formulating hypotheses, generalizing, identifying variables, inferring, interpreting data, measuring, observing, predicting, recording data, replicating, and using numbers to determine relationships. These skills are important in research methodology courses. Therefore, it was hypothesized that a relationship exists between science process skills and performance levels in research methods courses.

Participants comprised 124 graduate students enrolled in several sections of an introductory-level research methodology course. Science-process skills was measured via the Test of Integrated Process Skills II, whereas performance in the research methods class was assessed via midterm and final examinations. Findings revealed that students who demonstrated the highest competency in process skills also tended to exhibit the highest levels of performance in the research methods course at both the midterm and final examination stages. These relationships were moderate to large.

1:00-1:50 p.m. QUALITATIVE RESEARCH (Training Session) Meeting Room 5

#### COMPARING TRADITIONAL AND COMPUTER-AIDED DATA ANALYSIS PROTOCOLS

Byra L. Ramsey and Dana R. Monts, Arkansas Tech University

Qualitative data analysis can be overwhelming and laborious. The session began with a brief review of history and literature related to traditional qualitative data analysis. A demonstration on traditional coding and categorizing data was conducted by using qualitative artifacts. Transcripts were numbered, cut into categories according to the protocol questions, and transferred into colored-coded columns on a wall chart. After the demonstration and a discussion, participants were divided into groups of four and provided with artifacts to conduct similar exercises in traditional coding and categorizing.

The second part of the session began with a brief review of history and literature related to computer-aided qualitative data analysis programs. Comparisons were made among three computer software programs: (1) Atlas, (2) Ethnograph, and (3) NUDIST. Coding and categorizing qualitative data artifacts was demonstrated by using qualitative computer analysis software with the help of a digital projector.

Participants were asked to answer pre- and post-questionnaires that consisted of two open-ended questions: (1) reactions to computer-aided qualitative data analysis software programs, and (2) views on traditional vs. computer-aided qualitative data analysis protocols. These questionnaires provided comparisons between pre- and post-experiences, perceptions, and preferences of participants. The objectives of the session included: (1) understanding traditional and computer-aided data analysis protocols, and (2) applying traditional and computer-aided data analysis protocols to qualitative artifacts.



Issues and concepts explored during the session provided insights into traditional vs. computer-aided data analysis protocols. Regardless of the protocol used to code and categorize data, the key in qualitative analysis and theoretical thinking remains the primary job of the researcher themselves.



# Thursday, November 16, 2000

### 1:00 P.M.

1:00-1:50 p.m. COUNSELING (Discussion Session) Salon A

Presider: Candace Lacey, Barry University

#### A REVIEW OF SEXUALLY-ADDICTED CLIENTS

James R. Meadows and Katherine Dooley, Mississippi State University

The paper examined pertinent literature in the area of sexual addiction and sexually-addicted behaviors. The paper defined sexual addiction as an out-of-control pattern of sexual behavior that is maintained because to an obsession of sexual behavior(s), which may be life threatening. Because of limited related research, the work of Patrick Cares, a well-known researcher in the field of sexual addiction, was used as the basis of this research paper. However, the works of other researchers were included.

In his book, Don't Call It Love, Patrick Carnes identified several characteristics of sexual addiction, which include: (1) a pattern of out-of-control behavior(s), (2) severe consequences of sexual behavior, (3) attempts to stop, but no success, (4) high risk, self-destructive behaviors, (5) sexual fantasy and fantasy-coping strategies, (6) increased amounts of sexual activity, (7) time-focused on obtaining sex, having sex, or recovering from sex, and (8) neglect of social, occupational, or leisure activities.

In addition, Cares has characterized all sexually-addicted behaviors into eleven behavioral types. These behavioral types include: (1) fantasy sex, (2) seductive role sex, (3) voyeuristic sex, (4) exhibitionistic sex, (5) anonymous sex, (6) paying for sex, (7) trading or bartering sex, (8) exploitive sex (sex with children), (9) intrusive sex, (10) pain exchange sex, and (11) object sex.

The authors presented Cares work on identifying and characterizing sexually addicted behaviors. Also, the authors addressed further characteristics and consequences of sexually-addicted behaviors, such as family history, emotional history, physical and psychological problems, and personal consequences related to clients' addictive behaviors.

Finally, the authors concluded with a review of sexually-addictive behavior characteristics. In the review was presented an assessment of sexual addiction that may be used in identifying clients with these types of addictive behaviors.

#### THE WHO AND WHAT OF REHABILITATION COUNSELING RESEARCH: SEX OF AUTHORS AND TYPES OF STUDIES CONDUCTED WITHIN A TEN-YEAR PERIOD

Amy L. Skinner, The University of Tennessee-Knoxville

This study examined research, published in three leading rehabilitation counseling journals from January 1990 through December 1999 to discover how much and which types of research women authors had conducted. Also examined was the ratio of the sex of published authors in these journals and the relationship between sex of authors and types of rehabilitation counseling research published in these journals.

Journals included in the study were the Journal of Applied Rehabilitation Counseling and The Journal of Rehabilitation and Rehabilitation Counseling Bulletin. One hundred twenty journals, 40 of each, were reviewed. Discussion focused on current trends with respect to author's sex and article type (i. e. empirical, expository, etc), and implications for a field where practitioners (rehabilitation counselors) were primarily female.

#### MULTIPLE ADDICTIONS IN UNDERGRADUATE COLLEGE STUDENTS

Amy M. Wooten and Katherine M. Dooley, Mississippi State University

This study investigated the presence of multiple addictions in undergraduate college students. The 218 undergraduate college students were administered the South Oaks Gambling Screen, the Short Michigan Alcoholism Screening Test, and the Survey of Sexual Addictions Indicators. Data were analyzed using both descriptive measures and chi-square tests of independence. Results indicated that these college students evidenced multiple addictions. A statistically significant relationship was found between alcohol addiction and gender. In addition, a statistically significant relationship existed between reported parental sexual addiction and participants' sexual addiction scores.

1:00-1:50 p.m. STATISTICS (Symposium) Salon B

Organizer: Larry G. Daniel, University of North Florida

**Discussant: Gerald Halpin, Auburn University** 

CURRENT ISSUES IN RELIABILITY ANALYSIS

Overview

Authors of statistics textbooks routinely report that statistical power is affected by at least three components: (1) sample size, (2) level of statistical significance, and (3) effect size. However, a fourth component should be added, namely, the reliability of scores. Reliability, which typically ranges from 0 (measurement is all error) to 1 (no error in measurement), is the proportion of variance in the observed scores that is free from error. (Reliability coefficients also can be negative.) Unfortunately, as noted by Onwuegbuzie and Daniel (1999, 2000), relatively few researchers report reliability coefficients for data from their samples (Onwuegbuzie, 1999; Vacha-Haase, 1999; Vacha-Haase, Nilsson, & Reetz, 1999). This trend stems, in part, from a failure to realize that reliability is a function of scores, not of instruments (Thompson & Vacha-Haase, 2000; Vacha-Haase, 1998). The symposium presented three papers on the use and utility of reliability estimates in behavioral research followed by comments from a distinguished professor of educational research.

#### A Primer on Coefficient Alpha

Robin K. Henson, University of North Texas

The paper presented a conceptual primer on interpreting alpha and the factors that impact that interpretation. This paper also illustrated that it is data, not tests, that are either reliable or unreliable. Factors affecting the range of alpha, both conceptual and

mathematical, were also discussed, including the circumstances for which alpha can be negative. Classical test theory was discussed as regards alpha and other measures of score reliability.

Reliability Generalization: The Importance of Considering Sample Specificity, Confidence Intervals, and Subgroup Differences

Anthony J. Onwuegbuzie, Valdosta State University, and Larry G. Daniel, University of North Florida

The purpose of the paper was to provide a strong rationale for reporting reliability coefficients for underlying data. Specifically, uses of confidence intervals around reliability coefficients were advocated considering that reliability coefficients represent only point estimates. Further, it was argued that confidence intervals around reliability coefficients can be compared to coefficients presented in test manuals to assess generalizability. Finally, it was contended that reliability coefficients should not only be reported for the full sample at hand, but also for each subgroup. A heuristic example is utilized for the two-sample case (i.e., t-test) to illustrate how comparing subgroups with different reliability coefficients can affect Type I and Type II error rates.

Unreliable Does Not Equal Unuseful: The Use and Misuse of Data with Low Reliability Estimates

J. Kyle Roberts, Baylor College of Medicine, and Anthony J. Onwuegbuzie, Valdosta State University

Much of the current research concerning reliability is emphatically suggesting that researchers gather their own reliability estimates when administering an instrument. It has also been recommended that data with low reliability then be discarded. While some data obtained from instruments that originally yielded reliable results may be unreliable, it does not necessarily follow that the data are unuseful to researchers. Coefficient alpha could be small for at least two reasons: (1) student scores are less variable because of problems associated with the instrument, or (2) student scores are less variable because student homogeneity. Methods for determining the stability of unreliable data were discussed.

1:00-1:50 p.m. LEARNING (Discussion Session) Meeting Room 1

**Presider: Doug Masini, East Tennessee State University** 

AN ANALYSIS OF ONE SCHOOL'S ATTEMPT TO REDUCE WHITE FLIGHT BY IMPROVING PRIMARY STUDENT READING LEVELS, TECHNOLOGY USE, AND PARENTAL INVOLVEMENT

Sherri L. Cousin and Jack Klotz, The University of Southern Mississippi

The year-long study examined how a Mississippi school, when faced with growing rates of white flight, developed a program to not only change the perception of their school, but also increase reading achievement, technology use, and teacher proficiency in an effort to change attitudes and improve student and parent satisfaction. This paper presented background, strategies, objectives and results of the program

design. The main vehicle of instructional strategy was the utilization of technology to improve instructional delivery in reading. One component of this approach was a strong emphasis in staff development with an emphasis in technology infusion into the curriculum. Another element was a concentrated effort to motivate the learners through self-assessment, immediate feedback, and deliberate praise.

The assessment of this study was presented and was grounded in the analysis of

reading achievement data. Student achievement was measured by a nationally recognized reading achievement test. Students were tested in the fall and retested in the spring. Student enrollment figures, by race, were taken from official state records. To assess student and parent satisfaction levels with the school's reading and technology program, a pre- and post-attitudinal survey was collected, one in the spring and another in the fall. More that 95% of all students and parents responded both times. The findings of this study suggested that reading achievement has a positive correlation with technology use in the classroom. Further, the study revealed that, although satisfaction ratings can improve as well as reading levels, it does not necessarily attribute to a lessening of white flight

#### LEARNING DIFFERENCES IN SIGN LANGUAGE ACQUISITION

Tawnya J. Smith and Linda Morse, Mississippi State University

Research on sign language appears to center on the benefits of learning it. However, there appears to be relatively sparse information about how it should be taught, evaluated, and the differences in learning. Instruction, evaluation, and learning differences of normal hearing populations have been highly researched. Does it suffice to say that our knowledge of language can be generalizable to sign language? The purpose of this study was to explore learning differences in sign language. This study attempted to find if individuals are more accurate in recalling signs when they are demonstrated and they must identify the sign or when they are asked to demonstrate the sign. This study also investigated if there were any significant gender effects. A comparison on the accuracy of difference parts of speech was conducted to determine if certain parts of speech were easier to recall.

There were 17 educational psychology students who participated in three instructional sessions and were then evaluated on their retention. One group (N=9) was evaluated on their memory for the meaning of the sign when it was demonstrated to them. The other group (N=8) had to demonstrate the sign when the instructor presented them with the word.

The group that was evaluated on the meaning of a sign remembered more words than the group that had to demonstrate the sign. No gender differences were observed. Results also revealed that nouns and adjectives were more accurately recalled than verbs and adverbs. Implications of this research were discussed as well as recommendations for future research.

### FOSTERING READING AND LANGUAGE SKILLS IN YOUNG CHILDREN: A STATISTICAL ANALYSIS

Nicholas Brake and Patricia Ashley, Daviess County (KY) Schools, and Mimi Mitchell Davis, Educational Consultant

Reading is an exercise in language use, and good readers draw from their knowledge of language to comprehend a written message. In short, the ability to use language is essential to the reading process.

Realizing its importance and the fact that some students do not have the

language skills necessary for reading success, the school district of this study implemented an individualized computer-based training program intended to improve reading and language skills. The program uses acoustically-modified speech and speech sounds in its interactive exercises. Learning sessions are daily (five times per week) for two hours. Depending on the child's rate of learning, the program typically runs four to eight weeks.

Based on teacher recommendations and test scores, 50 students in grades P2 to grade five were identified as being deficient in language and reading and were selected to participate in the program. In an effort to monitor the gains made by these students in language and reading, the district evaluated student progress. The students were preand posttested using the Clinical Evaluation of Language Fundamentals (CELF-3) and the Woodcock Reading Mastery Test-Revised (WRMT-R) to evaluate gains in language and reading as a result of their participation. Several paired samples statistical procedures were conducted to examine the significance of the posttest results compared to the pretest scores.

An analysis of the CELF-3 data indicated a statistically significant improvement by students in the program in the areas of receptive language and recalling sentences. The results indicated that the difference from the pretest to the posttest did not occur by change. Therefore, with 99% confidence, the researchers conducted that the improvement was because of the students' participation in the program. The findings of this study have implications for those who are interested in assisting students with reading and language difficulties.

1:00-1:50 p.m. SOCIAL SCIENCE (Discussion Session) Meeting Room 2

Presider: Marcia R. O'Neal, The University of Alabama at Birmingham

EFFECTS OF INFUSION OF SPIRITUALITY INTO EDUCATION: BREAKING DOWN "THE WALL OF SILENCE"

Charles L McLafferty, Jr., The University of Alabama at Birmingham

This position paper presented a vision of education that accepts and infuses spirituality into every aspect of learning. Though a "wall of silence" exists in the fields of psychology and education, a growing interest in spirituality presages profound changes in our culture. Acceptance of spiritual concepts in educational endeavors could transform teaching, classroom management, and the effects on students.

Today, much testing emphasizes "right or wrong" answers with multiple choice batteries that numb the intellect. Hopefully in the future assessments will challenge the mind and soul with so-called "unanswerable" questions. The ends will not be the "earning" of a grade, but something infinitely more valuable: the unshakable understanding of oneself as a unique being in a supportive universe. In order to reach this understanding, it is necessary for psychologists and educators to recognize the possibility of something beyond the self and find ways to nurture a relationship with it. A meaningful personality development must coincide with a sane and balanced integration of spiritual energy and understanding.

Meaning will supersede the memorization of facts. This will promote a core, a center of universal "higher values" around which the personality can organize and develop. Later in life, there will be less need for "ethics" or "religiosity," as the person will have an internal compass far more accurate and unerring than these manmade attempts at providing external direction. Each discipline will advance the others and, above all, will help students know who they are, and what they are in the process of becoming. Slowly we will move toward the understanding that all academic disciplines are part of the same search for truth, and that all cultures, races and types of people are

our brothers and sisters.

A spiritual psychology will inform education in the training of genius, which will be recognized as a spiritual gift. As a result, society will put as many resources into genius as we currently put into "special education." Genius thus fostered will assist in the further transformation of society.

## THE NEW SOCIAL STUDIES TEXTBOOKS: WHAT LEVELS OF THINKING DO THEY PROMOTE?

Gregory Risner, Janice Nicholson, and Brenda Webb, University of North Alabama

Previous research concerning cognitive levels of elementary social studies textbooks revealed a preponderance of knowledge-level questions and activities. This study investigated the cognitive levels of questioning included in the teacher's manuals of the latest editions of elementary social studies textbooks.

Data were derived from two of the most widely used fifth-grade social studies textbooks in California, Texas, and Alabama combined. The textbooks selected for study were: (1) Harcourt, Brace and Jovanovich and (2) Macmillan/McGraw-Hill. After obtaining an interrater agreement of .96, three raters independently classified questions from the lesson plans that accompany teacher's editions according to Bloom's major categories.

Collectively, 76 items were classified as assessing knowledge, 124 items were classified as above-knowledge level. A chi-square statistical comparison (knowledge vs. above-knowledge level questions) indicated that the two series collectively included significantly (p<.001) more above-knowledge-level questions. Moreover, a comparison between the two most widely-used series indicated that Harcourt, Brace and Jovanovich contained significantly (p<.001) more above-knowledge-level items than the Macmillan/McGraw-Hill textbook series.

These data represented a much-needed shift from knowledge-only questions that have historically permeated the questioning patterns in previous social studies teacher's editions. Further, these findings indicated that the new social studies editions provide an opportunity for students to demonstrate understanding and application of elementary social studies information.

## CURRENT EVENTS AND COLLEGE STUDENTS: CONNECTING "HEADLINE NEWS" TO THE CLASSROOM

Judy Hale McCrary and Patricia Lowry, Jacksonville State University

The purpose of the study was to determine if preservice elementary education majors were connecting classroom learning about current events to an actual current event outside the classroom. The sample consisted of 53 students who were enrolled in a required course entitled "Curriculum Integration in Social Studies."

Teaching students about current events can open new horizons for them as they learn to deal with public issues that will affect the future. One goal of social studies is civic competence: to help young people "develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world." The main focus of this research was to show students how to support opinions with facts.

Several methods of data collection were used throughout the semester and included questionnaires and reflective writing. Students were encouraged at the beginning of the semester to gather information from various news sources in order to identify the facts and issues. A cross-case analysis was used to determine the results.

The findings indicated that as the semester progressed students' attention to the "Headline News" increased. There was a decrease in the number of students who had "no opinion" as it pertained to an ongoing current event. The findings also indicated that students were displeased with the media's over attention to a particular ongoing current event.

The main conclusion was that when students read beyond the details and news accounts and began identifying facts and issues, they were able to formulate an opinion based on facts.

#### 1:00-1:50 p.m. PERFORMANCE ASSESSMENT (Training Session) Meeting Room 5

#### DEVELOPMENTS IN CLASSROOM ASSESSMENT

Jim R. Flaitz, The University of Louisiana-Lafayette

The past decade has seen significant changes in philosophy, theory, and practice regarding the assessment of student achievement in the classroom. These changes, driven largely by parallel developments in instructional theory and practice, and strongly influenced by cognitive science, present special challenges to classroom teachers with traditional or no formal training in assessment practices. While some of the newer classroom assessment texts address these changes, most of the more popular and widely-adopted texts continue to emphasize the more traditional views of assessment and the practices that most closely reflect those views.

This training workshop was targeted to those teacher educators who are responsible for the development of classroom assessment skills among preservice or inservice teachers. The goals of the workshop were to: (1) familiarize participants with the trends and developments in cognitive science, instructional theory, and classroom assessment, (2) discuss the implications of these trends for the preparation of teachers in the area of classroom assessment, and (3) develop sample assessment materials based on the more contemporary models of instruction and assessment. Specific topics included: (1) linking assessment to instruction, (2) using assessment strategies that enhance intrinsic student motivation, (3) developing alternative hierarchical schemes for organizing student learner outcomes, (4) using traditional paper-and-pencil assessment forms to assess higher level thinking skills, and (5) creating effective performance assessment activities.

Classroom teachers, school administrators, and school districts across the nation are increasingly being held accountable for student results on standardized achievement tests that emphasize reasoning and problem solving over retrieval of factual knowledge. These same groups are also being challenged to incorporate authentic assessments into their classroom practices. This training session provided some new tools for teacher educators as they prepare their students for the changing assessment landscape.



# Wednesday, November 15, 2000

### 2:00 P.AL

2:00-2:50 p.m. HIGHER EDUCATION (Discussion Session) Salon A

Presider: Linda Cornelious, Mississippi State University

#### STATISTICS FINAL EXAM SCORES AND COMPLETION TIMES

Robert L. Kennedy, University of Arkansas, Little Rock

The purpose of this study was to investigate the relationship between the scores students earned on their statistics finals with the number of minutes the students required to complete the exams. In a review of the literature, Bridges noted a growing interest in the relationship between achievement test performance and order of finish as well as the time required, but observed that all of the studies reviewed were based on single administrations of examinations. To extend the range of interest from a single test to a course-based series, data generated from three multiple-choice introductory psychology examinations were examined. Little evidence was found to support either linear or nonlinear relationships between performance and order of finish or time required.

In the present study, the tests comprised two parts: mechanical calculations of statistics and interpretations of printouts. The amount of time allowed the students to complete the tests was unlimited, ranging from 69 to 305 minutes. Eight graduate-level basic statistics classes from the fall terms, 1996-1999, were involved in the study and their pooled group size for which there was complete data was 97, including 69 females and 28 males. The assumption of normality was not consistently met, so Spearman correlations were calculated: (1) -0.30 for females (p=0.01); (2) 0.24 for males (p=0.22); and (3) -0.15 overall (p=0.14). The effect sizes for r, according to Cohen, were medium for the females and small for the males and overall. That is, for the female students in this study, those who finished more quickly tended to perform better. For males, those who completed the tests quickly did not necessarily do better than those who took greater amounts of time, although there was a small tendency for those who took more time to perform better. Overall, the relationship was minimal.

#### TREATMENT BY APTITUDE INTERACTIONS AS A MEDIATOR OF GROUP PERFORMANCE IN RESEARCH METHODOLOGY COURSES

Kathleen M. Collins, Monmouth University, and Anthony J. Onwuegbuzie, Valdosta State University

Recently, there has been an increase in the number of research methodology instructors who utilize cooperative learning techniques in their courses (Onwuegbuzie & DaRos, in press). Unfortunately, little is known about the efficacy of this methodology in these classes (Onwuegbuzie, in press).

Debate exists about how to compose cooperative groups. Whereas some researchers advocate that homogeneous groups be formed, others recommend heterogeneous groups (Dalton & Kuhn, 1998). Interestingly, using qualitative techniques, Onwuegbuzie and DaRos (in press) found that the most heterogeneous groups tended not to function as well as did homogeneous groups. However, this

finding has not been tested empirically in research methodology courses.

Consequently, the purpose of this investigation was to determine whether: (1) groups with the highest mean levels of knowledge of the research process, as measured via mean midterm and final examination scores, produce the best cooperative learning projects, as measured by the quality of research article critiques and proposals, (2) degree of heterogeneity is related to the quality of these group projects, and (3) size of the group is related to quality of output produced.

Participants were 275 graduate students enrolled in several sections of an introductory-level educational research course over a three-year period. These students (n=275) formed 70 groups ranging in size from two to seven (M=3.99, SD=1.27). Using group as the unit of analysis revealed a small-to-moderate positive relationship between the mean midterm and final examination scores and scores on the article critiques and proposals--suggesting a "Matthew Effect," with respect to group outcomes. A positive relationship was found between degree of group heterogeneity at the midterm level and scores on the projects. However, no relationship was noted between group size and group performance. Interestingly, a treatment (i.e., group heterogeneity level) x aptitude (i.e., mean mid-term group performance) was found with respect to article critiques.

## RELATIONSHIP BETWEEN CRITICAL THINKING AND PERFORMANCE IN RESEARCH METHODOLOGY COURSES

Kathleen M. Collins, Monmouth University, and Anthony J. Onwuegbuzie, Valdosta State University

Facione, Facione, Blohm, Howard, and Giancario (1998) identified the following five components of critical thinking skills: (1) analysis, (2) evaluation, (3) inference, (4) deductive reasoning, and(5) inductive reasoning. As noted by Facione et al., an individual uses these cognitive skills interactively to determine selectively what to believe and what actions to take in order to form a purposeful judgment. Many of these skills have been identified as important in interpreting and applying research methodology at the graduate level (Onwuegbuzie, 1997). However, there is limited empirical evidence assessing the degree that critical thinking skills influence student performance in research methodology courses. This presentation reported results of an investigation designed to assess the relation between student achievement, as measured by their ability to interpret and apply research methodology, and their critical thinking skills.

Participants were 103 graduate students from various disciplines, enrolled in six sections of an introductory-level educational research course at a southeastern university. Subjects were administered the California Critical Thinking Skills Test (CCTST), a 34-item, multiple-choice test that targets core critical thinking skills regarded to be essential elements in a college education. Conceptual knowledge, which involved students' knowledge of research concepts, methodologies, and applications, was measured via comprehensive written midterm and final examinations. The examinations consisted of open-ended questions, involving items that required knowledge of the research process.

A series of Pearson's product-moment correlation coefficients, using the Bonferroni adjustment, revealed that midterm and final exam scores were positively related to overall critical thinking skills. Additionally, canonical correlation analyses indicated that: (1) both achievement scores were related to analysis, evaluation, and inference CCTST subscales; and (2) both achievement scores were related to inductive reasoning and deductive reasoning subscales. Effect sizes pertaining to both canonical correlation coefficients were large. Implications were discussed in the context of instructional practices and performance outcomes of graduate students.

#### 2:00-2:50 p.m. PREPARATION FOR EMPLOYMENT (Discussion Session) Salon B

Presider: Sean Forbes, Auburn University

### EFFECTS OF INVESTMENT IN EDUCATION AND TRAINING ON PERFORMANCE IN MANUFACTURING COMPANIES

#### J. Fred Williams and Jacquelyn Robinson, Auburn University

Most industrial managers are not aware of an effective way to relate education and training costs to employee performance. This study evaluated the relationship between company investment in the education and training of employees, and performance. A research hypothesis was posited that: "Increases in company investment in employee education and training will be accompanied by corresponding increases in the level of performance in each area studied."

A survey instrument consisting of 65 questions was designed and developed to gather investment and performance information covering the subject areas of: (1) investment in education and training, (2) productivity, (3) quality, and (4) safety.

This survey instrument was mailed to top managers of 250 selected companies; 133 of these were returned, and 108 were complete and usable, for a usable return rate of 43%. Data were gathered from manufacturing companies in 14 northeast Alabama and nine northwest Georgia counties. Companies were selected at random from manufacturing directories for the respective state and counties.

Data were analyzed using regression and multivariate analysis. Performance data from productivity, quality, and safety, identified as dependent variables, were regressed against the independent variable of investment data for education and training. Analysis of the data did not appear to support the research hypothesis, but did indicate several weaknesses in the industry regarding understanding, planning, and measuring the contribution of education and training to the company's bottom line. The study also revealed a need for more empirical research in the area of measuring the results of training and the ability to express results about the return on investment.

#### SCHOOL-TO-CAREER: EMPLOYER-EMPLOYEE SEARCH STRATEGIES

Herbert R. Horne and Jacquelyn P. Robinson-Horne, Auburn University

Discussions witnagement personnel from small- to mid-sized technically- orien ted manufacturing industries revealed a pattern of concern with problems experienced in locating, hiring, training, and retaining entry-level workers. Low unemployment rates exacerbated the problem of acquiring and retaining the quality workforce needed to be competitive in business. Difficulty in meeting workforce needs hampered the economic development of the region by (1) slowing expansion of existing businesses, (2) deterring relocation of businesses to the area, and (3) restricting new business start-up. A city economic development office funded this research project to better understand the processes in which: (1) industries seek, acquire and train new-hire entry-level workers, and (2) prospective workers seek and find entry-level jobs.

Both quantitative and qualitative methodology were employed in this study. The qualitative phase consisted of: (1) interviews with manufacturers and (2) focus group interviews with workers. Twenty-five companies located in eight counties employing 16,973 employees participated. From interviews, common threads were identified and analyzed. Reinterviews were used to clarify points and to follow up on questions derived from earlier interviews. A survey questionnaire was developed and

administered to a small sample for validation, then revised and administered to a manufacturers and employees. Fourteen companies with approximately 1,200 production workers participated in the survey. The report should enable businesses and industries to more effectively locate, hire and train workers, assist schools and employment counselors to prepare and advise job seekers, and assist planners and developers to support local and new businesses and industries in meeting their workforce needs.

### TEACHING PROBLEM SOLVING SKILLS TO TRANSITION-AGE STUDENTS WITH DISABILITIES

Steven A. Crites and Anthony J. Guarino, Auburn University

The purpose of this study was to evaluate the effectiveness of a program designed to teach a four-step, problem-solving strategy to increase social interactions with supervisors and coworkers. Studies have shown that workers with disabilities lose their jobs as a result of inadequate social skills at least as often as a result of inability to perform specific job tasks. Many experts suggest the goal of social-skills training should focus on increasing social competence and problem solving skills (Huang & Cuvo, 1997; McCuller, Moore, and Salzberg, 1992; Quinn, Sherman, Sheldon, Quinn, & Harchik, 1992).

The participants for this study were selected from a group of students with mild to moderate learning and behavior disabilities from area schools. The study used a multiple baseline, single-subject design across participants. During the training phase, students were taught a four-step problem solving procedure (Adapted from Foss & Vihauer's, WORKING II, 1988). The training program combined the use of videotaped scenarios (each depicting a problem situation), role-play, discussion, and behavior rehearsal to teach the problem solving strategy. Lessons centered on interactions with both supervisors and co-workers. Participants were read a scenario and asked to solve the problem (just as in the baseline phase). Data were collected on the strategy used to solve the problem and the quality of the solution. Probe data were graphed and analysis made by visual inspection.

Upon completion of the training phase, students were asked to retake the TICE. Preand posttest scores were analyzed by one-way repeated-measures analysis of variance.

2:00-2:50 p.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Dianne Sawyer, Tullahoma (AL) High School

A TECHNOLOGY "GENDER DIVIDE": PERCEIVED SKILL AND FRUSTRATION LEVELS AMONG FEMALE PRESERVICE TEACHERS

John F. Bauer, The University of Memphis

The purpose of the study was to examine female preservice teachers perceptions of gender differences in the learning and use of computer technology, as well as to provide insight into attitudes that might shape their future performance in classroom situations.

The research questions were: (1) How do female preservice teachers compare themselves with males with regard to computer technology? (2) At what skill levels do female preservice teachers rate themselves with regard to various educational technology applications? (3) How do levels of self-esteem equate with frustration when

female preservice teachers work with technology? and (4) How do female preservice teachers rate the effectiveness of the technology training in their teacher education program?

The primary source of data collection was a 35-item survey/questionnaire administered in the College of Education at a large urban university. Of the 45 preservice teachers who responded, 30 were chosen at random for the analysis. This data were analyzed using quantitative methods. An open-ended question and a focused interview were analyzed using qualitative methods.

The findings produced four identifiable, if somewhat overlapping, themes that relate to the purpose of the study: (1) a gender bias on the part of the females, (2) low self-esteem with computer technology accompanied by evidence of frustration, (3) medium enthusiasm and competency levels in various educational technology programs, and (4) opinions expressing weakness in the technology training received from Teacher Education programs

Important implications were in the field of elementary education, where the vast majority of teachers are female. Their reluctance to use technology in the classroom could undermine efforts to teach important computer skills to their students and help the U.S. keep pace with the rest of the technology world. Will schools moving toward a technology-centered curriculum be able to find suitably trained teachers willing to put technology in use in the classroom?

## A SURVEY OF TEACHER EDUCATION STUDENTS' ATTITUDES TOWARD COMPUTER TECHNOLOGY: A PILOT STUDY

David L Naylor, James C. Mainord, and Kathleen R. Atkins, University of Central Arkansas; James E. Whorton, University of Southern Mississippi; and Robert E. Fowler, College of Charleston

Few people question the desirability or efficacy of applying computer technology to K-12 education. Indeed, most states now expect K-12 teachers to possess minimal competencies in applying computer technology to teaching. Colleges and universities involved in teacher preparation, either because of state mandates or directives from accrediting agencies, such as NCATE (or both), are actively addressing the issues. Individual courses or infusion/integration approaches are being utilized to prepare teachers in the application of computer and related technologies to K-12 teaching. Both have their advantages, and it was not the intent of this study to champion either strategy. The purpose of this study, however, was to illustrate the importance of attitude in skill acquisition, particularly in the area of computer technology, to teaching in the K-12 classroom.

A questionnaire centering on attitudes toward computer technology was administered to 313 teacher education students at three different southern universities. The subjects were either working toward teacher certification or beginning students in the field of education. All students were enrolled in either an "Introduction to Special Education" or "Introduction to Computer Technology" course. The former was required for all teacher education students, and the latter was required or taken by most teacher education students. In addition to demographic characteristics, the questionnaire consisted of 15 questions centering on attitudes toward computer technology. Students responded to the items using a modified Likert scale, and SPSS for windows (version 8) was used for generating descriptive data. Results were presented in tabular form.

The findings of the study suggested that student attitudes have important implications for teacher training and skill acquisition in computer technology.

#### USING TECHNOLOGY TO CERTIFY SECONDARY TEACHERS: THE ALTERNATIVE

#### CERTIFICATION PROJECT

Randy Parker, Louisiana Tech University

Despite the best efforts of colleges of education and state departments, there continues to be a shortage of certified teachers, particularly in rural or at-risk school settings. The purpose of this study was to determine the effectiveness of an alternative certification program for secondary teachers with a particular emphasis on rural school districts. Thirty uncertified secondary teachers currently teaching in public school systems in a southern state were identified through collaboration between the university, school administrators, and interested participants. Participants held a bachelor's degree in a content area, agreed to complete 27 hours of modular coursework, and were employed for the next year by their school districts. Districts agreed to provide on-site mentors, release time, and continued collaboration with program participants. The university provided instruction through campus courses, five compressed video sites, email, online mentors, and other technologies.

Courses were delivered as Integrated Professional Development Modules designed to address the knowledge base and performance skills needed to meet the Intern Evaluation Program adopted by the state. Participants also received PRAXIS preparation workshops, weekly mentoring sessions, and assistance in developing a professional portfolio.

As a result of the project, all participants passed all parts of the PRAXIS and successfully completed all components of the Intern Evaluation Program. Data also indicated that participants preferred the compressed video format to on-campus courses, made regular use of the electronic mentors via email, and utilized the Praxis workshops. Less encouraging was the confusion over the completion of professional portfolios and the occasional unavailability of on- site mentors. Nevertheless, the project met its goal of increasing the number of certified secondary teachers. Other school districts and universities can use this project as a model to integrate technology into the preparation of alternatively certified teachers.

2:00-2:50 p.m. INSTRUCTION (Discussion Session) Meeting Room 2

Presider: Connie Jones-Wade, Middle Tennessee State University

USE OF APPROPRIATE METACOGNITION TEACHING APPROACHES FOR A TECHNOLOGY BASED CLASSROOM

Lary C Rampp, RidgeCrest Learning, Inc., and Steven G. Lesh, Southwest Baptist University

The classroom of tomorrow is available today. This technologically-enhanced classroom no longer has overhead projectors, chalk boards, or film projectors. This classroom has Internet connections, videos, graphics, and integrated technological personations. The skills needed to guide a teacher in the appropriate and effective use of these different and emerging technologies are not taught in teacher preparation programs. Teachers often adopt these technologies independently with little institutional support or clear understanding of how to enhance the learning of the student. The cumulative goal of the presentation is to identify through the current literature which instructional models work well in a technology-enhanced classroom environment.

This presentation examined current literature for some of the more effective instructional models that can be used to maximize student learning in today's

technology based classrooms. Some of the more prominent are direct instruction, cooperative learning, discussion, and behavior modification. This presentation compared these models with current research identifying the most effective styles to be used in concert with new classroom technologies.

The examination included how to specifically adapt the use of these theoretical instructional models into the current classroom. Included within the structure of technologically-enhanced instruction were the most modern metacognition techniques including note taking, active learning, listening, and learning styles. Each appropriate model was explained, giving examples and providing handouts for distribution to the participants.

### THE EFFECTS OF POSITIVE DISCIPLINE TECHNIQUES AS THEY RELATE TO TRANSITION TIMES IN THE MIDDLE SCHOOL CLASSROOM

Patrick N. Kariuki and Ruth C. Davis, Milligan College

The purpose of the study was to examine the effects of positive discipline techniques as they relate to classroom transitions in the middle-school classroom. The sample for the study consisted of four language arts classes with a total of 113 eight-grade students from a school system in northeast Tennessee. The students were randomly assigned to each class. Of these students, 100 were Caucasian, and 13 were African Americans. Fourteen of the students were learning disabled, and eleven were gifted.

Data were collected by establishing transition times before and after positive discipline was implemented. The teacher timed the students when they transitioned from one activity to another before and after positive discipline techniques were implemented. Data were analyzed using a paired sample t-test and Pearson's product moment correlation. The results indicated a significant difference in transition times before and after positive discipline, and a significant negative relationship between the use of positive discipline and the time it takes the students to transit from one task to the next. The findings of the study suggested that students in the middle school classrooms would benefit from positive discipline techniques.

# THE USE OF INTERTEXTUALITY IN EXAMINING THE ROLE OF A CORE- KNOWLEDGE-BASED CURRICULUM IN THE DAY-TO-DAY TEACHING OF AN EIGHTH-GRADE MATHEMATICS TEACHER

Nora W. Shuart-Faris, Vanderbilt University

The purpose of this study was to investigate the ways in which a new systemwide core-knowledge-based curriculum impacted the day-to-day classroom life of an eighth-grade teacher. Specifically, the questions that guided this study were: (1) How did the implementation of the new heavily structured curriculum impact the teacher's day-to-day teaching? and (2) How did the new curriculum influence the ways in which the teacher taught in previous years?

The ethnographic study was conducted over a seven-month period (November to May) during the 1998-1999 school year in one eighth-grade mathematics classroom. The classroom was located in a racially-mixed (Caucasian, African American, and Hispanic), Title 1 school in a large metropolitan school district. The participating teacher was a 27-year veteran teacher who taught both mathematics and language arts. Data collection consisted of field notes from three visits per week to back-to-back, 50-minute class periods, video-recorded classroom lessons, audio-recorded interviews with the teacher and groups of students, and textual artifacts from the classroom, the school,



and the school district. A micro-level discourse analysis was conducted to determine the process of intertextuality, specifically, how texts (from many sources) were used to indicate a teaching ideology.

Initial findings from this study indicated that while the new curriculum was used in the classroom, the ways in which it was used were different from the apparent intentions of the creators of the curriculum. That is, in this classroom the new curriculum had an impact on when something was taught; however, the teacher's use of the new curriculum was much more as a testing and record-keeping device than as a new way of thinking about teaching mathematics. Instead, the teacher continued to teach in the way that she thought was most effective and more student-centered.



# Thursday, November 16, 2000

### 2:00 P.M.

2:00-2:50 p.m. HIGHER EDUCATION (Discussion Session) Salon A

Presider: Michele Jarrell, The University of Alabama at Birmingham

#### TRANSITIONAL ISSUES OF UNTENURED FACULTY

Carol A. Mullen and Sean A. Forbes, Auburn University

A needs assessment for mentoring was conducted to evaluate the personal/professional needs of junior professors not being met by existing academic structures. The assessments identified critical issues of transition that can be used for developing effective mentoring programs. This study was based on the reflective and critical feedback of untenured faculty working in the United States, Canada, and Australia. The results can be used for developing effective mentoring programs.

Testimonials of untenured faculty (Boice, 1992; Ducharme, 1993; Tierney, 1997) highlight the vulnerability of untenured faculty as an occupational group arising from a "crisis of professional self-identity" (Nixon, 1996, p. 5). An understanding of this issue was approached from the Carnegie Foundation's belief that effective mentoring offers the best preparation for faculty socialization and evaluation (Glassick, Huber, & Maeroff, 1997).

Untenured faculty were defined for the purpose of this study and the survey as faculty who hold tenure-track and adjunct posts in research universities. Sixty untenured faculty members responded to a survey designed to elicit personal reflections on their experience of being socialized during the pretenure years. The survey centered on mentoring assistance, preparation, interactions with other faculty, unexpected connections, and informal channels of information. The data were coded using a comparative thematic technique for analysis (Miles & Huberman, 1994).

Formalizing a mentoring process that responds to everyone's needs is difficult. Also, informal collegiality cannot be mandated. However, the data included recommendations for improving untenured faculty socialization in three areas: (1) defining the criteria for gaining tenure, (2) promoting collegiality as cooperation rather than competition, and (3) developing awareness of the academic power structure. For example, many respondents called for clarifying conversations with departmental/campus leaders about criteria for tenure.

MAKING THE MOVE: THE TRANSITION FROM GRADUATE STUDENT AT A PH.D.-GRANTING UNIVERSITY TO NEW FACULTY AT A SMALL, PRIVATE, LIBERAL ARTS **COLLEGE** 

Vicki A. Wilson, Wilmington College

Making the transition from graduate assistant to new faculty member is often difficult. Making the transition from graduate student at a Ph.D.-granting university to new faculty member at a small, private, liberal arts college in a remote location is even more difficult, involving change in both professional and personal arenas.

In this study, 42 faculty members in their first, second, or third year of employment at small, private, liberal arts colleges in a nine-college consortium centered around eastern Ohio were asked to describe their initial impressions of faculty and

administration and to reflect on those things that helped or hindered their transition into the college community and the local community. They were also asked whether or not they intended to begin their careers at small colleges and what surprises they encountered in their new positions. Finally, they were asked to make suggestions about how their colleges and communities could ease the difficulties encountered in their first years as faculty members.

What emerged was a picture of earnest young professionals, most sincerely committed to teaching and many attracted to small colleges because of their own experiences as students, struggling to figure out the required balance of teaching, research, and service while making long commutes or trying to create satisfying lives in rural communities in which they feel they have little in common with their neighbors. Their suggestions included improving the pay scale, reducing course loads to allow for research and service, making candidates and new faculty aware of the abilities and expectations of students, and resolving issues that cause resentment and disgruntlement among the more senior faculty.

#### VALIDATION OF SITUATIONAL JOB SATISFACTION THEORY FOR PART-TIME FACULTY

Hae-Seong Park, University of New Orleans

Over the past 30 years, American colleges and universities have markedly increased their reliance on part-time faculty instruction. Although job satisfaction of part-time faculty is seldom researched, job satisfaction has long been a well-studied concept in organizational theory. The result of a recent meta-analysis (Thompson, Mcnamara, & Hoyle, 1997) showed that Situational Model of Job Satisfaction was preliminarily supported through a synthesis of research findings. The purpose of this study was to examine the validity of the situational model of job satisfaction for part-time faculty.

The data employed in this study were drawn from the 1992-93 National Study of Postsecondary Faculty (NSOPF-93). Faculty members who had part-time appointments and who marked that teaching was their primary responsibility were drawn for the analyses. The resultant sample size (n=5,703) was 22% of the total sample. Structural equation modeling using AMOS was employed to analyze the data.

The findings indicated that the situational model, including a combination of typical task characteristics, organizational characteristics, and individual characteristics impact on job satisfaction, was not valid for part-time faculty. Contrast to theory task variables were not significant, whereas organizational and individual variables were statistically significant factors for part-time faculty. Among the measured variables, the quality of facilities/resources (beta = .33) and the faculty's preference for part-time appointment (beta = -.22) demonstrated a strong association with job satisfaction. Not only the overall job satisfaction (beta = .24) but also the perception of compensation (beta = .26) have significant impacts on the intention to remain in academia. Recommendations for future research were offered.

2:00-2:50 p.m. AT-RISK STUDENTS (Discussion Session) Salon B

Presider: Marie Miller-Whitehead, Tennessee Valley Educators for Excellence

UWA SECONDARY EDUCATION TUTORING PROJECT FOR THE WEST ALABAMA LEARNING COALITION

Gloria D. Richardson, Gloria J. Abrams, John Byer, and Tom W. DeVaney, University

of West Alabama

This study, conducted during the fall semester 1999, by tutors who were secondary education majors at the University of West Alabama sought to determine if tutoring on specific reading skills helped at-risk students improve their frustration levels. Of the initial 24 participants, 12 students completed both the pretest and posttest administration of the Informal Reading Inventory. Analysis of the Frustration Level scores was completed with a paired t-test. A T-value of -2.97 was obtained. This was significant at P-Value of 0.013. This finding confirmed the hypothesis: There will be an improvement in at-risk high school students, Frustration Reading Levels after 15 hours of remedial training in specific reading strategies and skills by UWA tutors. The qualitative portion of the study examined attitudes toward tutoring and found that the preservice teachers (tutors) were positive about their field experiences.

## AN ALTERNATIVE SCHOOL WITHIN A SCHOOL: A CASE STUDY ON MEETING MOTIVATIONAL, CURRICULA, AND INSTRUCTIONAL NEEDS OF AT-RISK STUDENTS

Rebecca S. Watts, University of Louisiana at Monroe

High dropout rates potentially threaten the social and economic status of our nation. Alternative schools are becoming increasingly popular as programs to prevent at-risk students from dropping out of school. Previous research has identified common characteristics among alternative schools (Peterson, Bennet, & Sherman, 1991), as well as risk factors that characterize students in danger of dropping out (Hahn, 1987; Barber & McClellan, 1987). Of significant interest and less emphasized in research on at-risk students are the motivational factors that lead to students becoming classified as at-risk and how the curricula and instructional programs of alternative schools accommodate the needs of at-risk students. Alternative schools differ in their organization and the student population they serve. This study focused on an alternative school program in north Louisiana functioning within the facilities and programs of a conventional high school and serving the at-risk students identified within the conventional high school. The purpose of this study was to identify the needs of students in the alternative program and determine how the program's curriculum and instruction differs from that of the conventional school in accommodating student needs. Data were gathered through classroom observations, analysis of documents reflecting the goals and objectives of the program, and interviews with students, teachers, and the alternative school program director. Results of this study suggested that self-esteem is a significant motivating factor among at-risk students. Curricula and instructional programs of the alternative school are implemented to accommodate student needs, yet these programs compliment the programs offered by the conventional school.

## TEACHER'S PERCEPTIONS OF THE EFFECTIVENESS OF READING TUTORIAL PROGRAM FOR AT-RISK STUDENTS

Mimi Mitchell Davis, Educational Consultant, and Patricia Ashley, Daviess County (KY) Public Schools

In response to young children that are at risk for reading failure, school districts are implementing tutorial programs (e.g., Reading Recovery) that use volunteers or certified teachers. Previous research has examined the effectiveness of these programs on reading achievement. However, little is known about what teachers think about reading tutorial programs. The purpose of this study, then, was to examine teachers' perceptions of the effectiveness of a tutorial program that used volunteers.

The goal of the school district of this study was to support classroom reading

instruction by implementing a tutorial program. To determine its effectiveness, surveys were developed and sent to 93 teachers at 12 elementary schools. The surveys, comprised of a structured rating scale and open-ended questions, focused on gaining responses that reflected the teachers' opinions. The rating scale ranged from highly effective to having a negative affect or not relevant. The open-ended questions provided an opportunity for the teachers to state their opinions about the program and to offer possible changes that would strengthen it. Frequencies of the effectiveness were tabulated, and the open-ended questions were examined for emerging patterns and trends.

Of the 61 teachers (65.5%) who responded, most (68.9%) reported that there was no coordination between the tutorial program and classroom reading instruction. Only two (3.3%) teachers reported that there was coordination. This finding is interesting since the district's goal was to support classroom reading instruction. Other findings indicated that some students received less classroom reading instruction than students who did not participate in the program.

This investigation suggested that teachers who understand their students' needs better than anyone should play a major role in the development and implementation of a tutorial program if it is to be effective. The findings have implications for educators who are interested in reading tutorial programs for at-risk students.

2:00-2:50 p.m. MATH EDUCATION (Discussion Session) Meeting Room 1

Presider: Vincent McGrath, Mississippi State University

ATTITUDES TOWARD MATHEMATICS INSTRUMENT: AN INVESTIGATION WITH MIDDLE SCHOOL STUDENTS

Martha Tapia, Berry College, and George E Marsh II, The University of Alabama

Declining national test scores in mathematics and an increasing dislike of the subject by students have elevated student attitudes as an area of concern. Positive attitudes toward mathematics are critical for successful participation in the mathematics curriculum and achievement. The purposes of this study were to: (1) develop an instrument to measure students' attitudes toward mathematics (ATMI), (2) investigate a sample of middle school students, and (3) find the underlying dimensions comprising the ATMI. The sample consisted of 262 middle school students attending a private, bilingual preparatory school in Mexico City. Students were asked to indicate their degree of agreement with each statement, from strongly disagree to strongly agree. Variables considered were the value of mathematics as subject matter, anxiety, motivation, confidence, enjoyment, and adults' expectations. The alpha reliability coefficient for the scores on the entire instrument was .95. The nine weakest items were eliminated, which retained an alpha reliability coefficient of .95. A maximum likelihood factor analysis with a varimax (orthogonal) rotation was used to yield three scales designated as self-confidence, enjoyment of mathematics, and value of mathematics. The alpha reliability coefficients for the scores on the subscales were .94, .92, and 84, respectively. The ATMI psychometric analysis yielded sound properties and can be used by researchers and practitioners to measure students' attitudes toward mathematics in the middle school.

#### OFFERING DEVELOPMENTAL MATHEMATICS ONLINE

Gail H. Weems, Southern Illinois University, Carbondale

This study compared two sections of beginning algebra: one taught online and the other by traditional lecture. The variable of primary interest was mathematical ability; however, the discussion also included students' attitudes toward mathematics and their reports of the effectiveness of the online course.

Of the 28 students enrolled in each section, 19 completed the course. The reduction in class size is a bit large; however, it is within the range of expected sizes for developmental mathematics courses.

The instructor met with the online section during the first week of classes, introducing students to the course and demonstrating the course web page. After the first week, students communicated with the instructor by email, telephone, course discussion board, and during a review session held on campus the week of each exam. Students used the textbook, video, CD tutorial, and contact with the instructor, by the aforementioned methods, to learn the material. Weekly online quizzes required students to keep the pace set forth in the syllabus, and homework problems were collected during each of the three exams. Students in the traditional section used the same textbook, video, and CD tutorial; however, they did not have access to the course web page and took their quizzes in class.

While no significant differences between the scores of the two groups were found, and comments from the online students were positive, instructors should remain aware that this instructional method may not be appropriate for all students and all topics. Many students initially enrolled in the online section, only to learn of the instructional method, and changed to a traditional section. Certain topics were also more difficult with the materials used online, with factoring polynomials being particularly problematic. The findings of this study suggested implications for classroom practice, specifically for teaching mathematics.

# THE EFFECTS OF FOUR SELECTED COMPONENTS OF OPPORTUNITY TO LEARN ON MATHEMATICS ACHIEVEMENT OF GRADE 12 STUDENTS IN NEW PROVIDENCE, BAHAMAS

Janet M. Collie-Patterson, The University of Southern Mississippi

The purpose of this study was to determine if a single dimension of opportunity to learn (OTL) could be identified using four selected components of teachers, students, classrooms, and schools' characteristics and to determine if each of the four selected components of OTL was related to mathematics achievement.

The primary sample of the study consisted of 1,015 grade 12 students from six public and six private schools in New Providence, Bahamas. Complete data were available for 463 students. The secondary sample consisted of 52 mathematics teachers who taught the participating students in the tenth, eleventh, or twelfth grade. Both the complete and incomplete data sets were analyzed.

The findings of this study indicated that the model-data-fit was reasonable, suggesting that there was a relationship between opportunity to learn and three selected components of teachers' characteristics, students' characteristics, and schools' characteristics. The fourth component, classrooms' characteristics, was not significantly related to OTL.

Each of the four components was significantly related to mathematics achievement. When the component indicators were considered individually, course taking, teaching strategies, professional development, educational background, affiliation, strength of climate, recognition, commitment, accomplishment, socioeconomic status, attitude toward school, and student's prior ability were significantly related to mathematics achievement. However, manipulative use, parental involvement, and years of teaching experience were not significantly related to

mathematics achievement. Surprisingly, professional development, attitude toward school, strength of climate, recognition, and accomplishment were negatively significant to mathematics achievement

In terms of effect size, students' characteristics made the largest contribution to mathematics achievement followed by classrooms, schools, and then teachers' characteristics. The set of students' characteristics (parental involvement not significant) explained about 60% of the variability in mathematics achievement, classrooms' characteristics (manipulative use not significant) explained about 36%, schools' characteristics explained about 12%, and teachers characteristics (teaching experience not significant) explained about 8%.

2:00-2:50 p.m. STATISTICS (Discussion Session) Meeting Room 2

Presider: Ernie Rakow, The University of Memphis

### BIGGER IS NOT BETTER: SEEKING PARSIMONY IN CANONICAL CORRELATION ANALYSIS VIA VARIABLE DELETION STRATEGIES

Mary Margaret Capraro, University of Southern Mississippi

Theory building and/or generation is often guided by the principle of parsimony, which suggests that given two equally viable explanations for a phenomenon, the simpler explanation is most likely replicable. As such, social science researchers often seek to explain the most for the least, such as maximizing the R2 value in a multiple regression analysis with the fewest possible predictors.

Furthermore, even in multivariate contexts where researchers may purposefully examine omnibus relationships between multiple variables to model complex reality, parsimony is often preferred over obtuse models that include variables that do little to help the explanatory power of the model. Canonical correlation analysis, for example, can be used to examine the joint relationship between two sets of variables. However, either (or both) of these variable sets may include variables that are minimally (or simply not) useful in maximizing the overall effect size, or squared canonical correlation. In such cases, the researcher may be compelled to delete the variables from the final model. Given the flexibility of canonical correlation analysis in theory development, it is useful in both measurement and substantive contexts to determine which variables provide little information for the analysis.

There are several variable deletion strategies available to facilitate parsimony in canonical correlation analysis, each of which focuses on slightly different aspects of the analysis. The purpose of the paper was to illustrate these methods in a manner accessible to applied researchers. To make the discussion concrete, data from a study of math attitudes and thinking processes in sixth grade students were used to illustrate each approach. Three methods of variable deletion were presented that focused on canonical communality coefficients, squared canonical correlation coefficients, and weighted communality coefficients.

## CANONICAL COMMONALITY ANALYSIS AND THE COMMON MAN: UNDERSTANDING VARIANCE CONTRIBUTIONS TO OVERALL CANONICAL EFFECTS

Robert M. Capraro, The University of Southern Mississippi

Multivariate statistical methods have increased in popularity over recent decades, largely because of increased access to computer technology and user-friendly

software packages. Beyond ease of access, however, multivariate methods are critical in research because they allow researchers to more accurately examine the complexities of reality, where causes have multiple effects and effects have multiple causes. Accordingly, interest in omnibus model effects has increased.

Even in the context of full-model effects, however, researchers are also commonly interested in determining from whence the full effect came. For example, in canonical correlation analysis (the multivariate general linear model that subsumes other parametric analyses as special cases), researchers may wish to determine what variables in the predictor set were able to contribute to the effect size. Furthermore, it may also be of interest to determine what useful/predictive variance was shared among two or more variables in a set. These unique and shared portions of variance can be partitioned and defined using a process called canonical commonality analysis.

Essentially, canonical commonality analysis allows a researcher to determine what unique contribution a given variable made to the effect size. Furthermore, the analysis will also inform the researcher regarding what shared contributions were made among all combinations of the variables. While the overall multivariate effect is generally of interest to most researchers, defining the sources of variance for the overall effect may also be of interest.

The purposes of the paper were to: (1) provide an overview of canonical correlation analysis and (2) illustrate canonical commonality analysis as a post hoc method of determining unique and shared variance contributions from variables in a predictor or criterion sets. Heuristic data were employed to make the discussion concrete and accessible to the applied researcher. Venn diagrams were used to build a conceptual framework for the statistical discussion.

#### INTERPRETING THE FOUR TYPES OF SUMS OF SQUARES IN SPSS

Jesus Tanguma and F. M. Speed, Texas A & M University

A typical analysis of variance (ANOVA) table consists of, among other things, source, sums of squares, degrees of freedom, mean square, F-calculated, and p-calculated. Because each F-calculated is found by a ratio of mean squares, researchers need to be very careful as to how the sums of squares are computed. These sums of squares are computed by SPSS differently depending on the design being analyzed.

Three research designs (balanced, unbalanced, and missing data) are illustrated by means of hypothetical examples. The purpose of the paper was to explain and illustrate the choices.

When the design is balanced, all of the SPSS types of sums of squares yield equivalent results for testing the significance of the ANOVA models. Moreover, the hypotheses being tested are interpretable.

When the design is unbalanced, the hypotheses being tested are dependent on the type of sums of squares being used. Thus, decisions made based on tests of significance when the design is unbalanced may differ depending on the type of sums of squares being used. Additionally, only the hypotheses being tested under Type III and Type IV sums of squares are interpretable.

In case there are empty cells in the design, none of the types of sums of squares agree. Additionally, only the hypotheses being tested under Type IV sums of squares are interpretable. However, these sums of squares are dependent on the variability and pattern of the missing cells. Thus, if any conclusions are to be made based on these sums of squares, they should be made with caution.

Each design was also analyzed using SAS. At each step, the results, testable hypotheses, and sums of squares were identical, within rounding errors, to those obtained by SPSS.

### 2:00-2:50 p.m. TECHNOLOGY (Display Session) Meeting Room 4

## A COMPARISON OF STUDENTS' COMPUTER-GENERATED ART AND STUDENTS' ART CREATED WITH TRADITIONAL MEDIA

Barbara England, Freed-Hardeman University, and Dennie Smith, The University of Memphis

As technology and computers become more accepted in the classroom, students and educators will be challenged to use technology in creative and expressive ways. It appears that in art education only a few inquiries have been conducted looking specifically at technology and the use of computers as art media. Publications, and forums for art educators have discouraged quasi-experimental studies in the field.

This study explored the perceptions and processes of children when using computers as art media. Children were observed as they created art using computer media and traditional media (crayons, markers, and pencils). The study compared procedures to complete the drawings and the results of drawings created with the two different media. The individual elements of art were the basis for forms developed by the researcher to analyze each drawing.

The analysis of the element space, value, and color indicated no significant difference in the drawings, and the presence of the element or the degree to which it was emphasized in the drawing. Additionally, there was not a significant difference in the recognizable subject matter in the two drawings. The significant differences in the drawings occurred in the use of lines and shapes. The computer drawings contained more geometric shapes than organic shapes and more lines drawn with the straight edge tool when compared to the lines drawn using a ruler in the traditional drawings.

The perceptions of the children concerning their artwork and the two drawing experiences were favorable for the computer media. The perception that it was easier to change a drawing influenced the degree to which they enjoyed the experience. This study suggested implications for the art educator as well as the computer artist and encouraged further study in the area of technology when used as art media.

#### ELECTRONIC PORTFOLIOS: METHODS STUDENTS CONNECT WITH TECHNOLOGY

Vivian H. Wright and Joyce Stallworth, The University of Alabama

With implementation of national standards addressing technology, teacher preparation programs are faced with the issues of preparing teachers to effectively use and to seamlessly integrate technology across content areas. A team teaching approach at one major southeastern university required its methods students to produce electronic portfolios during spring 2000. The teaching team consisted of secondary education language arts and social studies faculty, instructional technology faculty, and graduate students from both disciplines. This effort of modeling technologically best practices resulted from numerous team meetings, intensive planning, and consistent project evaluation. The preservice teachers were required to attend technology seminars in addition to regular classroom and methods work. Students were evaluated on their electronic portfolios, which consisted of websites, digitally-edited teaching episodes, databases, concept maps, and more. Through pretest and posttest surveys, the students were assessed on their perceptions of an electronic portfolio's value and their ideas of how technology can enhance teaching and learning in future classrooms. Results from these assessments and procedural details were presented, along with the challenges and successes experienced by the teaching team and the students.



#### MSERA AND THE MILLENIUM: SUBMITTING AND REVIEWING PROPOSALS ONLINE

Malenna A. Sumrall, The University of Alabama at Birmingham

During 1999, selected MSERA members were asked if they would like to participate in submitting their proposals via email, and program committee members were asked if they would like to review papers via email. The response to this pilot project was overwhelmingly positive. Therefore, it was decided to allow any MSERA member to submit a proposal electronically for the 2000 annual conference.

Web pages were created for collecting information from program committee members, for submitting proposals, and for reviewing proposals. All data from these web pages came to the author as email messages. The data in these messages were used to create a variety of files that helped automate the duties of the program chair. This display session described the methods used to facilitate this process.



# Wednesday, November 15, 2000

### 3:00 P.A.

3:00-3:50 p.m. ATTENDING TO SELF-EXPRESSION (Discussion Session) Salon A

Presider: Dennis Zuelke, Jacksonville State University

THE USE OF THE STUDY CIRCLE IN SCHOOL REFORM: BRINGING ALL THE VOICES TO THE TABLE

Jo S. Chesser and Larry McNeal, University of Arkansas at Little Rock

The Study Circle process provides an experience of successful communication that enables the development of new relationships, bonding between participants, and action toward problem solving. The common ground discovered by community citizens through the Study Circles process permits school leaders to be the channel for the values and visions of the community. The recommendations and concerns expressed in the Study Circles provides information to school board members, superintendent, principal, and teachers and is a link to the decision-making process the school district must have for 21st century educational change and for the development of future citizens

A qualitative case study of the Study Circles program on education, Calling the Roll: Study Circles for Better Schools, describes the perceptions of adult and student participants in two of the participating Arkansas communities. The case study compares the themes of the interview transcripts with the findings of the 1998 quantitative database, archival documents, and current literature findings to provide triangulation of the data. Information from the research on the study circle in the early 1990's and developing research studies on youth study circles were also correlated in order to explore and investigate the phenomena of the first statewide study circles on education in America.

Student input provides adults with a better picture of what the school is like today. When Arkansas students found that the study circle was a safe place to express their opinions and share their ideas, they opened up to the conversations with the adults in their circle. The findings indicated a change in both student and adult perspectives in understanding other individuals. The importance of face-to-face communication in enlisting participants as well as the value of this effective communication approach in developing shared understanding and ideas for action were presented through the experiences of the participants.

#### AT-RISK MIDDLE STUDENTS SPEAK: A TRIAD TEAM LISTENS

Nancy L. Tarsi and Mary Sue Polleys, Columbus State University, and Michelle Jones, Baker Middle School

This study explores the development and expression of student voices relating to their experience of exposure to high-level technology at a brand new and wellequipped middle school. Grades six through eight at Baker Middle School began classes in their new facility in January 2000. This research tapped the perspectives of some eighth-grade students who were exposed to technology-rich instruction available in their new school. There is some evidence in the literature that marginalized students benefit from alternative teaching and learning strategies (Gardner, 1993; Zimmerman & Allenbrand, 1965), and that individualized instruction activities are more helpful that traditional classroom instruction (Kazlaukas, 1987).

In-depth interviews were conducted with nine eighth-grade students from Baker Middle School who were engaged in classroom work in the computer lab in spring 2000. The interviews were transcribed and a hermeneutic analysis conducted (Kvale, 1987) to ferret out themes and patterns in the student narratives. In addition, the data were analyzed using the qualitative software \*NUDIST,\* which examines the data for themes and patterns quantitatively. The two kinds of data analysis procedures were compared for similarities and differences.

The initial themes that were derived from the interview questions showed a surprisingly strong voice speaking to the students' experience of differences: (1) the difference between now and then, (2) the difference between having a nice school and having a broken down school, and (3) the difference between having new computers and the latest technology and having old, used textbooks.

A follow-up focus group was scheduled for late summer when all the individual participants were invited to take part in a group discussion of the themes revealed in the individual interviews. That session was thematically analyzed in two ways.

### MY PLACE IN TIME: USING DIALOGUE IN THE EXPLORATION OF RECOLLECTION AND IMPLICIT KNOWING VIA STUDENT-DIRECTED TIMELINES

Douglas E. Masini, East Tennessee State University

The observation of human behavior increasingly suggests that there is a chasm between what you do (leadership, skill, behavior) and what you know (intellect, cognition, aptitude). To examine the gap between what we do and what we know regarding the teaching of children, literature was reviewed on school-life activities that allow children to express knowledge, judgment, goal-setting, decision making, wisdom, and values and was found lacking. Polanyi (1967) said, ". . . people know more than they can tell"; it is inferred that children are filled with implicit and explicit information and utilize it at a younger age than is reflected in existing texts.

Timelines allow children to express the "separate realities" of their lives. Thirty rising fifth and sixth graders at a rural elementary school used brightly colored washable markers and a 24" x 48" piece of white freezer paper to create a line that began at any time in their past and ended at any time in the future. They were asked to reflect on what had happened to them in their past, what was happening to them today, and what they envisioned would happen to them in their future, and to put it on paper. Personalization and embellishment were encouraged; spontaneous teams and joint efforts were not discouraged. After one hour, each student gave an extemporaneous presentation, followed by praise and applause.

Students prioritized the relevance of events of their life chronologically, with potent examples of mature life experience emerging from their presentations. Students examined loss, suffering, death, as well as joy and victory in their life; discussed leadership figures and loved ones; and excitedly presented meaningful plans for their future.

Timelines have no diagnostic value, but serve to establish a dialogue between teachers and students that leads to the emergence of critical literacy.

3:00-3:50 p.m. TESTS (Symposium) Salon B

Organizer: Linda H. Frazer, Kentucky Department of Education

#### ILLUMINATING THE STANDARD SETTING PROCESS FOR KENTUCKY CATS

### **Overview of the Standard Setting Process**

Linda H. Frazer, Kentucky Department of Education

In 1999, Kentucky's accountability assessment, the Kentucky Instructional Results Information System (KIRIS), was replaced with the Commonwealth Accountability Testing System (CATS). With this change came the decision to reexamine the performance-level cut scores and to reconsider the performance categories (Novice, Apprentice, Proficient, Distinguished). The six-step standard setting process occurring November 1999 through March 2001 will result in recommendations to the Kentucky Board of Education.

#### Facilitating the Drafting of New Performance Descriptors by Kentucky Teachers

Rhonda L. Sims, Kentucky Department of Education

In October and November 1999, approximately 90 Kentucky teachers, representing seven content areas, three grade levels (elementary, middle school, and high school), and special education, convened to draft new generic, content specific, and content/grade-level specific student performance standards. This presentation described the process and shared the newly drafted grade/level content specific standards.

### **Contrasting Groups Study**

Robert Wetter, Kentucky Department of Education

The Contrasting Groups Study compared classroom teachers' ratings of their students' performance with students' subsequent test scores. The target sample was 50 schools per content area/grade-level assessed with approximately 50 students per school. This presentation described methods used to select a "rectangular" distribution for the target sample to include equal numbers of the four performance levels sought, the methodology for collecting the data, and analyses.

### Jaeger-Mills Method

Beverly M. Klecker, Kentucky Department of Education

Content-specific committees, comprised mainly of teachers, compared the newly- drafted NAPD performance descriptors with a representative set of complete student responses to the 2000 Kentucky Core Content Tests assessment. Recommendations about the descriptors were made based on cut scores identified through this review of student work.

3:00-3:50 p.m. MATH EDUCATION (Discussion Session) Meeting Room 1

Presider: Rod Roth, The University of Alabama

SCIENTIFIC AND MATHEMATICAL THINKING AND PROBLEM SOLVING: WHAT IS IT AND HOW CAN IT BE MEASURED?

Jennifer Good, Glennelle Halpin, and Gerald Halpin, Auburn University

Educators in mathematics and sciences attempt to teach true understanding of complex concepts, and they often turn to instructional methods that purport to improve students' problem solving skills. Unfortunately, no singly-accepted definition of problem solving exists. Thus, how can these methods be assessed or evaluated when problem solving remains an illusive construct, difficult to define and measure? Once a thorough understanding of mathematical and scientific problem solving has been attained, educators can adopt the most appropriate instructional models for enhancing and evaluating these skills.

Beginning first with the mathematical theory of understanding presented by Pirie and Kieren (1992), which suggests that understanding mathematics and science requires a thinking-oriented process of change, growth, and development, we systematically explored the literature to find commonalities across different definitions of mathematical understanding and problem solving. Some of the common themes that emerged among these definitions included the complex, recursive, and step-oriented nature of the problem solving process. For instance, most problem solving definitions began with: (1) a gathering of data, (2) a basic understanding of concepts, (3) a questioning, analyzing, and dissecting of data, and (4) an eventual evaluation of multiple alternatives or solutions to single problems.

Having compared and contrasted the differing definitions of problem solving, the current methods for measuring and evaluating problem solving skills were examined. Included among these methods were rubrics of problem solving based upon some of the earlier described definitions, with a discussion of the advantages and disadvantages of each. The implications of this study were that, if educators in the maths and sciences continue to maintain growth of problem solving skills as a primary objective of instruction, then clear definitions of problem solving must be formulated and accepted, and methods of measuring associated skills must be developed and utilized within the mathematics and science academy.

### PREDICTORS OF VISUALIZATION: A STRUCTURAL EQUATION MODEL

Rebecca R. Robichaux, University of Louisiana-Hammond, and A. J. Guarino, Auburn University

Many students enter postsecondary education lacking visualization skills, which have been linked with success in mathematics, mechanical engineering, architecture, and mathematics education. Few studies, however, have employed structural equation modeling to examine predictors on the development of visualization skills. Predictors in this study were gender, handedness, parents' occupations, family income, musical experiences, childhood spatial experiences, spatial hobbies, and favorite mathematics course. Visualization was measured by The Spatial Visualization Test (Middle Grades Mathematics Project, 1983). One hundred seventeen volunteer undergraduates at a major southeastern university were participants.

The model was evaluated in two ways. First, departure of the data from the specified model was tested for significance by using a chi-square test (Joreskog and Sorbom, 1989). Second, goodness-of-fit between the data and the specified model was estimated by employing the Comparative Fit Index (CFI) (Bentler, 1990), the Tucker-Lewis Index (TLI) (Bentler and Bonett, 1980), and the Root Mean Square Error of Approximation (RMSEA) (Browne and Cudeck, 1993). Although the chi-square test was significant, chi-square (142), p < .05, the model yielded acceptably high goodness of fit indices (.981 and .975) for both the CFI and the TLI, respectively. The RMSEA achieved a value of .056 indicating a close fit of the model in relation to the degrees of

freedom.

Results indicated that musical experience and childhood spatial experiences had direct influences on visualization. Childhood spatial experiences were found to be a mediating variable on gender, family income, and mother and father's occupations on visualization. However, favorite mathematics course and spatial hobbies were not significant predictors. Implications of this study were discussed.

### AN INVESTIGATION OF HIGH SCHOOL STUDENTS' MISCONCEPTIONS IN PROBABILITY AND STATISTICS

Rhonda C. Porter, Auburn University

Current reform efforts in mathematics call for making probability and statistics (stochastics) a fundamental component of the school mathematics curriculum. Research has shown that many factors limit students' understanding of and performance in stochastics. Students' misconceptions are problematic as they result in a lack of conceptual understanding of stochastics.

The purposes of this study were: (1) to determine if certain defined misconceptions in stochastics are present in students attending one particular high school and, if so, which misconceptions, (2) to determine if social factors (i.e., ethnic background, gender, grade, and family socioeconomic level) affect these students' misconceptions in stochastics, and (3) to determine if academic factors (academic track, on or off mathematics grade level, and taking honors classes) affect these students' misconceptions in stochastics.

Two hundred high school students were given an assessment that addressed reasoning in stochastics. A total of 12 misconceptions were covered in this study including Anchoring and Adjustment, Availability, Conditionals, Conjunction Fallacy, Correlation implies Causation, Equal Groups to Compare Means, Equiprobability, Law of Small Numbers, Means and Averages, Outcome, Representativeness, and Sample Size. Quantitative measures were employed. Comparing means from students previously given the assessment showed that the misconceptions were present in the high school students. Additionally, multiple regressions and bivariate correlations were performed on each of the 12 misconception scales against the seven independent variables.

The results showed that gender, the only significant social background variable, and whether students were enrolled in honors mathematics classes were significantly contributing factors of the misconception Availability. Females had a higher misconception in Availability, and students enrolled in honors mathematics classes had a higher misconception in Availability. Students who were identified as not being on mathematics grade level had higher misconceptions in Anchoring and Adjustment, and students who were enrolled in honors mathematics classes had a higher misconception in Equiprobability.

3:00-3:50 p.m. EDUCATIONAL LEADERSHIP (Discussion Session) Meeting Room 2

Presider: Janice Patterson, The University of Alabama at Birmingham

AN INVESTIGATION OF TEACHERS' PERCEPTIONS OF THEIR PRINCIPALS' DELEGATION AND RELATIONSHIP BEHAVIOR

Otis K. LoVette, University of Louisiana at Monroe

Are building principals perceived by their teachers as exhibiting behaviors that empower and engender ownership and responsibility on the part of the teaching staff? It is generally recognized in literature and research relating to effective school leaders that teachers who are empowered through the behaviors/actions of their school leaders are more productive in terms of student achievement and also have greater job satisfaction.

This research investigated the perceptions of teachers relative to two areas identified in a Principal Profile survey as Relationships and Delegation. The survey, which contained 34 items relating to the above two areas, was administered to 76 graduate students in the School Administration program at the University of Louisiana at Monroe who were teaching during the 1999-2000 school year. The teachers came from 11 parishes in north Louisiana and several counties in Arkansas. Teachers also provided demographic data relative to the ages and genders of their principals and the sizes and types (e.g., elementary) of schools. The data were analyzed to determine relationships between each of the demographic categories and the 34 items. Of special interest to the researcher were the ages and sexes of the principals related to their perceived use of the behaviors identified in the survey instrument.

Teachers' perceptions, which are reality to them and the basis for their own personal actions and responses, indicated a need for building administrators to give more attention to their behaviors relative to Delegation and Relationships.

### FIELD INVESTIGATION OF ON-THE-JOB BEHAVIOR OF AN ELEMENTARY SCHOOL PRINCIPAL

Wallapha Ariratana, Khon Kaen University, and Jack Blendinger and Linda T. Jones, Mississippi State University

This study used structured observation methods to investigate on-the-job behavior of a principal working in a rural elementary school in northeastern Mississippi for 16 consecutive days during the months of November and December. During the observation period, the principal worked 155 hours and put in an average workday of 9.6 hours.

Relatively few studies observing principals in their daily work environments have been done. The majority of studies investigating the managerial behavior of principals has used questionnaires as the means for collecting data. The shortcoming of the questionnaire approach, however, is that it relies on the respondent's self-reporting of events and may not accurately reflect actual practice. No previously reported study has used structured observation techniques to study on-the-job behavior of an elementary school principal at work for longer than a week.

Findings revealed that the principal in this study spent the majority of her time "managing by walking about" the buildings and grounds (26.9 hours), handling personnel matters (21.3 hours), performing office-related tasks (20.7 hours), disciplining students (20.7 hours), doing "other" activities (16.6 hours), working with parents (15.0 hours), and addressing curriculum and instruction (13.5 hours). She spent less time for staff development (9.4 hours), business matters (7.2 hours), and shaping school culture (3.5 hours).

Findings also revealed that the principal spent nearly 25% of her time involved in scheduled and unscheduled meetings and conferences. Because she maintained an open-door policy, the principal had many face-to-face encounters and was often interrupted by teachers, school staff members, and parents while doing office tasks.

### JOB SATISFACTION AMONG HIGH SCHOOL ASSISTANT PRINCIPALS

Kuei-Lung Chen, National Changhua University, and Jack Blendinger and Vincent

### McGrath, Mississippi State University

This study investigated job satisfaction among high school assistant principals in Mississippi. In particular, the study addressed: (1) the degree of general, intrinsic, and extrinsic job satisfaction, (2) if there were relationships between general, intrinsic, and extrinsic job satisfaction and the length of time worked as an assistant principal, (3) if there were relationships between general, intrinsic, and extrinsic job satisfaction of assistant principals and school size as defined by student enrollment, (4) what high school assistant principals like most and least about their jobs, and (5) what responsibilities high school assistant principals would like added or deleted from their jobs.

The population investigated consisted of all assistant principals employed in Mississippi high schools. The short-form of the Minnesota Satisfaction Questionnaire (MSQ) was used to collect the majority of the data. Originally designed to measure general, intrinsic, and extrinsic job satisfaction among employees working in business and industrial settings, the instrument was modified for use with assistant principals in school settings by rewording some of the statements to make them more appropriate. Additional, open-ended questions were also added to the instrument.

Results showed a high degree of general, intrinsic, and extrinsic job satisfaction among the assistant principals. Compensation and workload were the only factors receiving less than a 50% satisfaction rating. No statistically significant relationships were revealed between job satisfaction and two specific variables examined in the study: (1) length of time worked as an assistant principal and (2) school size by student enrollment. However, the findings mildly suggested that the fewer years worked as an assistant principal, the less administrators were satisfied; the more years worked as an assistant principal, the greater the job satisfaction.

3:00-3:50 p.m. ATTITUDES (Display Session) Meeting Room 4

### VALIDITY AND RELIABILITY OF THE STATISTICS ANXIETY RATING SCALE

Mustafa Baloglu, Texas A&M University-Commerce

As the importance of statistics increases, student difficulties related to statistics receive more attention. One of the greatest difficulties is statistical anxiety (or statistics anxiety). There are several instruments that intend to measure statistics anxiety such as the Statistics Anxiety Scale, Statistics Anxiety Inventory, and Statistics Anxiety Rating Scale (STARS). Out of these three instruments, only STARS was originally developed to measure statistics anxiety. Two other instruments were modified from mathematics anxiety scales and are, therefore, theoretically not sound.

The STs4a 51-item, five-point Likert-type assessment instrument that measu res statistics anxiety by six subscales: Worth of Statistics, Interpretation Anxiety, Test and Class Anxiety, Computational Self-Concept, Fear of Asking for Help, and Fear of Statistics Teachers. There are only limited studies that have investigated psychometric properties of the STARS (i.e., Cruise, Cash, & Bolton, 1985; Onwuegbuzie, 1993). Therefore, this study investigated validity and reliability of the STARS. More specifically, confirmatory factor analysis tested its six-factor structure and internal consistency, and split-half reliability tested its consistency.

LIBRARY ANXIETY: THE ROLE OF STUDY HABITS

Qun G. Jiao, Baruch College, The City University of New York, and Anthony J. Onwuegbuzie, Valdosta State University

Researchers consistently have reported that many public school students exhibit poor study skills. Inadequate study skills also have been documented among undergraduate students. Recently, deficits in study skills have been found to prevail at the graduate level, too. Because graduate students tend to utilize academic library extensively to study and to undertake library research for class assignments, theses, and dissertations, it is likely that students with poor study habits would be at a disadvantage in this setting. Although not yet empirically tested, inadequate study skills likely is a predictor of library anxiety among graduate students. Indeed, researchers have documented the prevalence and pervasiveness of library anxiety among this population.

Thus, the purpose of this study was to identify graduate students' predominant study skill strengths and weaknesses. Also examined was the relationship between specific study skills and library anxiety. Participants were 133 graduate students from a number of education disciplines at a university in the southeast. These individuals were administered the Study Habits Inventory (SHI; Jones & Slate, 1992) and the library anxiety scale (Bostick, 1992). Findings revealed that students' responses to 58.8% of the 63 study skill statements presented in the SHI were appropriate. Although this proportion was found to be significantly higher than for undergraduate students in previous studies, these findings suggest that graduate students also could benefit from study skills training. Indeed, study skill weaknesses were identified in the areas of notetaking and reading skills. An all-possible-subsets multiple regression analysis led to the identification of eight specific study behaviors that predicted (F [8, 124] = 13.07, p < .0001) levels of library anxiety. These study habits explained 45.8% (adjusted R2 = 42.3%) of the variance in library anxiety, which, using Cohen's (1988) criteria, represents a large effect size. Implications for library anxiety reduction as a study skills intervention were discussed.

3:00-3:50 p.m. TECHNOLOGY (Training Session) Meeting Room 5

#### USING THE POWER POINT DRAWING FEATURES TO ENHANCE THE PRESENTATION

Feng Sun and James E. McLean, The University of Alabama at Birmingham

In the past, presentation visuals included overhead transparencies, paper flip charts, and slides in a slide projector. Producing these visuals was often a complicated and costly process requiring the services of a graphics designer. Now professional-looking visuals can be easily produced on a computer using the presentation software such as Microsoft PowerPoint.

Educators, business people, and students all give presentations at one time or another. PowerPoint is an effective pedagogical tool that is simple to use. This training session demonstrated how to create presentations with Microsoft PowerPoint 2000 emphasizing its graphic drawing features. This training session covered: (1) how to build a master slide as a template, (2) how to add watermark to the background, (3) how to create the flow chart, (4) how to create a panoramic view in PowerPoint, (5) how to animate individual pie pieces in PowerPoint chart, (6) how to draw and erase during PowerPoint slide shows, (7) how to ungroup and group clip art to create new images in PowerPoint, (8) how to create 3D graphics and WordArt, (9) how to capture the web images and to insert them into the presentation, (10) how to create and customize charts from numerical data, (11) how to animate the text and graphics in the presentation, and (12) some tips and tricks of PowerPoint.

By the end of this training session participants were able to produce professional presentations and incorporate a wealth of tricks and techniques covered in



this session that would allow them to fully exploit this powerful package for a professional-looking presentation. Handouts were provided, and electronic support was available following the meeting via a website designed especially for this purpose.



## Thursday, November 16, 2000

### 3:00 P.M.

3:00-3:50 p.m. HEALTH ISSUES (Discussion Session) Salon A

Presider: Jennifer Good, Auburn University

CIGARETTE SMOKING AND BODY IMAGE CONCERNS AMONG FEMALES: A REVIEW OF LITERATURE

Roberta E. Donahue and Graham F. Watts, The University of Alabama

In spite of the well-publicized morbidity and mortality risks associated with cigarette smoking, tobacco use among adolescent females is increasing. Data from the 1997 Monitoring the Future study show smoking among female twelfth-grade students in the United States increased from 27.5% in 1991 to 35.2% in 1997. Health educators must identify reliable predictors of smoking initiation and barriers to cessation among young women in order to design effective prevention programs for schools. The purpose of this review of literature was to summarize key studies that have found tobacco use to occur more frequently among females with body image concerns.

The major findings discussed included: (1) use of tobacco by females as a weight control device (Camp, Klesges, & Relyea, 1993; Klesges & Klesges, 1988; Tomeo, Field, Berkey, Colditz, & Frasier, 1999), (2) fear of weight gain as a significant barrier to cessation (Lando, Pirie, Hellerstedt, & McGovern, 1991; Talcott et al., 1995), (3) body dissatisfaction associated with increased rates of smoking and drinking (Wright, 1989), (4) female current and past smokers felt less satisfied with their appearance than never smokers (Ben-Tovim & Walker, 1991), (5) high levels of concern about weight and shape typified female smokers both with and without eating disorders (Wiseman, Turco, Sunday, & Halmi, 1998), and (6) appearance-related motivations for smoking contributed to girls reporting less interest in smoking cessation than boys did (van Roosmalen & McDaniel, 1992).

Preventing smoking initiation is a critical health education priority. School programs must address female body image issues as part of their Drug Education curriculum. Applied research is needed to better understand how diverse groups of girls and young women may internalize more positive body images in order to support health-enhancing, tobacco-free lifestyles.

#### AED IMPLEMENTATION IN SCHOOLS

Camille M. Filoromo, The University of Alabama

There are many high schools and colleges placing automated external defibrillators (AED's) both on-campus and in extra-curricular activities such as sports events. One-third of all schools teaching CPR report trained students have used their skills in actual emergencies, (AHA, 2000). Researchers have also confirmed that sixth graders trained in AED's perform as effectively as paramedics (AHA, 1999). The statistics supporting the integration of AED's with CPR have been compelling enough to convince organizations and schools to implement their use. The purpose of this review of literature was to inform the educator that AED with CPR implementation in schools must be supported.

The basic findings were: (1) in the United States alone, more than 1000 people suffer from sudden cardiac arrest, and more than 95% of them do not survive due to lack of early defibrillation, (American Heart Association, 1996), (2) resuscitation skills can be taught as early as the first grade, and one-third of all schools teaching CPR report that students have used their training in emergencies, (AHA, 2000), (3) efficacy of AED use in children over eight years old and over 55 pounds has been determined, (Atkins et. al., 1998, Sobel, 1998), (4) AED use is easily learned by children, (AHA, 1999), and (5) failure to have an AED available in cardiac emergencies can be a liability, (Sobel, 1998).

AED's are being placed in National Football League games, shopping malls, airlines, and now schools. Because research has confirmed early defibrillation is critical in sudden cardiac arrest, and their efficacy of use in children has been determined, the placement of AED's in schools should be supported. Further research is needed to determine more affordable ways to disperse AED's into schools and to encourage legislation to cover AED operators under the Good Samaritan laws in all states.

#### A STUDY OF OPINIONS ON THE NUTRITIONAL ENVIRONMENT OF MIDDLE GRADES

John J. Marshak and R. Dean Wood, The University of Southern Mississippi

This was part of a study of the opinions of middle grades teachers, administrators, and food service directors about the nutritional environment (defined as support for healthy eating habits) of their schools. This age group was selected because they are the first students who are allowed to make decisions about their eating at school.

Because this is a topic without much existing research, it was decided to investigate the rudiments of the issue by asking representatives of each of the groups a number of questions. This was done without anticipated responses thus qualifying as qualitative research. Focus groups were selected from across the nation. To facilitate travel, three regional sites were chosen. At each site, nine panel members from each of the three groups participated in a day-long interview. A team of interviewers was selected because of their experience in working with schools at this level. They participated in intensive training with a noted qualitative researcher to develop the questions and the techniques necessary to facilitate participants' responses.

In the interviews, participants were asked to list elements of their schools' nutritional environment and rate the effect they had on students' healthy eating habits. For those items that made negative contributions, suggestions were solicited on how to overcome them. Only the teachers' opinions are examined here.

Data analysis consists of a two-pronged approach: first was to determine commonalties in responses between and among the groups; second, an attempt was made to use a computerized qualitative data analysis package.

The results of this study will be submitted to the United States Department of Agriculture. It is expected that the results will be considered when new federal policy effecting school nutrition and school lunches is developed.

3:00-3:50 p.m. SCHOOL REFORM (Symposium) Salon B

**Presider: Jeffery Gorrell, Auburn University** 

WHAT CHANGES AND WHAT STAYS THE SAME IN SCHOOL REFORM

Jeff Gorrell, Rhonda Porter, and Joe Ross, Auburn University

#### Overview

This symposium concentrated on the results of two years of the Learning Connections Project (LCP) a school improvement project operating in five middle schools (urban, rural, and suburban) in the New Orleans area of Louisiana. The goals of the LCP include increasing the variety of teachers' instructional and assessment strategies, helping teachers and principals move toward more learner-centered practices, and facilitating teachers' implementation of classroom practices that reflect the diversity of ways in which students learn. Systematic classroom observations, teacher, principal and student interviews, and field notes and interviews with LCP staff form the basis for each of the following papers. The papers in this symposium addressed the nature and quality of high-implementing teachers in the project, the relationships between improved teaching performance and assessment practices, and the ways in which the schools have engaged in overall change through this project. Time was allotted for audience participation and discussion.

### **Changing Practices Among Effective Teachers**

Jeff Gorrell, Rhonda Porter, and Joe Ross, Auburn University, and Nancy Ares, University of Utah

The first paper profiled 14 teachers who were designated as high implementers of project goals and concentrates specifically upon a case analysis of seven teachers from the beginnings of the project to the end of the second year. Compared to typical teachers, most high implementation teachers involve students in a greater variety of learning experiences, assess students' progress more broadly, engage students in more meaningful learning, and have a more supportive classroom climate. Classroom climate is positive among virtually all of the high-implementation teachers, and student motivation and engagement are generally high.

#### **Improved Teaching Does Not Mean Improved Assessment**

Rhonda Porter, Jeff Gorrell, and Joe Ross, Auburn University, and Nancy Ares, University of Utah

The sepaper detailed relative improvement in teaching effectiveness but limit mprovement in assessment practices. In the second year of this project, teachers e encouraged to widen their assessment practices, to find ways to use asses nt for deeper understandings of student capabilities and achievement, and integrate assessment within their more student-centered teaching practice. st of the teachers expanded the variety of their assessment practices to some ext. However, a few indicated that they did not change their assessment practic Even the teachers who changed their assessment practices continued to use ditional methods of assessing student achievement (e.g., tests, homework, written assignments) with only limited attention to assessing group projects, cooperative group work, and application activities. This paper discussed the factors that may cause assessment practices to be one of the most resistant factors to change in school reform efforts.

#### Impact of Principal Support on School Change

Joe Ross, Jeff Gorrell, and Rhonda Porter, Auburn University, and Nancy Ares, University of Utah

The third paper examined the ways in which leadership support for the LCP influenced the direction of that reform on each of the schools, as well as on individual teachers and students. The paper described the principals' support and role in facilitating a reform effort that involved improving classroom instruction and student assessment in select schools and classrooms. Interviews with principals, teachers, students, and reform specialists indicated that, while principal support is an important component, even in schools where principal support is minimal, dedicated teachers still tended to find ways to make necessary changes in their own classrooms.

3:00-3:50 p.m. TEACHER EDUCATION (Discussion Session) Meeting Room 1

Presider: Rebecca McMahon, University of South Alabama

### PRESERVICE TEACHERS' PERSPECTIVES ON CONSTRUCTIVIST TEACHING AND LEARNING

Indranie Dharmadasa, Chicago State University

In this study, the perspectives of early childhood preservice teachers about constructivist teaching and learning were examined. In a constructivist classroom the teacher is a facilitator to the child's construction of knowledge rather than a transmitter of knowledge. Past research records that the teacher should carefully and clearly organize the learning environments, provide appropriate materials, present the activities to children individually or in groups, conduct observations, facilitate options, interact appropriately, ask questions and pose problems that stimulate children's thinking, document children's learning, and build relevant theories. Constructivist teaching requires sensitivity to all aspects of a situation in which children structure their experience in its many different spheres.

How do preservice teachers perceive constructivist teaching? How do they perceive students' learning? These two issues were addressed in this study. The sample consisted of 32 preservice teachers who were enrolled in an early childhood program in a university in a Midwestern state. Data were collected by means of a written assignment and analyzed mainly by using qualitative research procedures.

From the responses given by the preservice teachers, three major themes directly related to constructivist teaching, and eight themes related to children's learning were identified. Also, two themes were identified related to overall teaching and one compared with direct instruction.

Results showed that the preservice teachers were more concerned about aspects of students' learning rather than teaching. Most of them appeared to be connecting the theoretical knowledge gained from coursework they have had in college but not projecting their thinking to actual classroom teaching.

For preservice teachers to handle constructivist teaching effectively with confidence, it is essential for them to develop appropriate knowledge and skills about practices. Participating in programs where they get opportunities to experiment with constructivist theories of teaching may help preservice teachers become competent in constructivist teaching and students learning.

### PRESERVICE TEACHERS' PERCEPTIONS OF CHARACTERISTICS OF EFFECTIVE TEACHERS: A MULTI-STAGE, MIXED METHODS ANALYSIS

Lynn C. Minor and Anthony J. Onwuegbuzie, Valdosta State University

The relatively few studies of the perceptions of preservice teachers concerning attributes of effective teachers have utilized qualitative techniques using small samples. Thus, the present study utilized a four-stage, mixed-methodological analysis to examine preservice teachers' perceptions of characteristics of effective teachers, as well as to investigate whether these perceptions are influenced by educational beliefs (i.e., progressive vs. transmissive). Data for this study were collected from 134 preservice teachers enrolled in several sections of an introductory-level education class for education majors at a large university. Students were given: (1) a questionnaire asking them to identify, to rank, and to define characteristics that they believe excellent teachers possess or demonstrate, and (2) a published survey that identified participants' educational beliefs as either progressive or transmissive.

A phenomenological analysis of responses (i.e., Stage 1) revealed several characteristics that many of the preservice teachers considered to reflect effective teaching. In order of endorsement level (i.e., Stage 2), the following seven themes emerged from these characteristics: (1) student-centered (55.2%), (2) effective classroom and behavior manager (33.6%), (3) competent instructor (33.6%), (4) ethical (29.9%), (5) enthusiastic about teaching (23.9%), (6) knowledgeable about subject (19.4%), and (7) personable (15.7%). Using the Bonferroni adjustment, a series of chisquare analyses (i.e., Stage 3) revealed no relationship between the seven perception categories of effective teachers and preservice teachers' race, year of study, preferred grade level for teaching, and educational belief. However, statistically significantly more males than did females endorsed teacher characteristics that were associated with being an effective classroom and behavior manager.

A maximum likelihood factor analysis (i.e., Stage 4) revealed a three-factor solution that explained 55.5% of the total variance. The seven themes, which loaded on the three factors, dealt with instructional and management skills, ethical and well-tempered behavior, and knowledge and enthusiasm of/for subject and student. Implications were discussed.

### PERCEIVED RESPONSIBILITY OF PROSPECTIVE TEACHERS FOR THE MORAL DEVELOPMENT OF THEIR STUDENTS

Robin K. Henson, University of North Texas

The role of moral and/or character education has been hotly debated. Many supporters of moral education initiatives have called for teachers to professionally embrace their values in the workplace, for schools to collectively recognize systemic norms, and for teachers to engage with students in discussion/instruction around moral issues. Others have called for teacher educators to prepare novice teachers to appropriately handle the moral issues inherent in teaching. However, research has indicated that impacting the moral beliefs of prospective teachers is a difficult practice at best. Important in this discussion is the degree that preservice teachers feel responsible for the moral development of their students. Without perceived responsibility, competent action is unlikely.

The current study examined the perceived responsibility of prospective teachers for students' moral development. During a required educational psychology course, 186 preservice teachers completed multiple journal questions to facilitate reflection on course content. One question inquired whether schools are moral environments and to what extent teachers are responsible for the moral development of their students. Thirty responses were randomly and anonymously selected for qualitative analysis. The

sample was largely female (86.7%) and Caucasian (86.7%). Most participants were in their last year of teacher education (83.3%) and were pursuing secondary education certification (73.3%). A constant comparative method was used to analyze the narrative responses for emergent themes.

Several important themes emerged from analysis. Results indicated that most participants felt that schools were inescapably moral environments, but the preservice teachers were inconsistent in their perceived responsibility for impacting student's moral development. While many reported that teachers are responsible, this responsibility was by default because many parents fail to teach morals at home. Teacher-parent unification on moral issues/instruction was almost non-existent. Implications for teacher education were discussed centering on preparing preservice teachers to develop cooperative alliances with parents concerning student moral development.

3:00-3:50 p.m. EXCEPTIONAL EDUCATION (Discussion Session) Meeting Room 2

Presider: Marcia R. O'Neal, The University of Alabama at Birmingham

THE MORE THINGS CHANGE: A LONGITUDINAL STUDY OF PLACEMENTS OF SPECIAL EDUCATION STUDENTS IN LOUISIANA

Jane Nell Luster, Louisiana State University, and John Durrett, Special School District, Louisiana Department of Education

There's a saying - the more things change, the more they stay the same. In 1997, a study of Louisiana's special education placement data for 1990-1995 found placements remained essentially unchanged despite vocal school system support of inclusion and implementation of statewide system change initiatives. It was also found that as students aged, placements became more restrictive.

The current study followed up and extended that study by posing these questions: (1) Has significant change in the number of students in general education, resource, or separate settings occurred from 1990 to 1999? (2) Have the significant differences in placements by age category continued? and (3) Which school systems show a tendency toward more or less inclusion of students and how do they compare on identified variables?

Data were generated from a statewide student database, using the federal reporting date of December 1 for comparison. Analysis of variance (ANOVA) was used to test for significance. For question three, data were ranked using percentage of students in general education and in separate settings.

Results indicated no significant change occurred in placements by year during the ten-year period, although practical changes were noted. Comparisons for age placements showed significant differences. Three school systems with a high percentage of students in general education and four with a high percentage of students in separate settings were identified. System- level variables associated with placement were identified and discussed.

There has been change, albeit in smaller increments than presumed or desired. Whether these changes are of actual importance or fluctuations over time is questionable. Age comparisons continue the pattern. Results were discussed about the use and problems inherent in longitudinal data analysis and the study of placement as a variable. School system variables provided indications of factors that may influence the reception and practice of inclusion.

### DIFFERENTIATION OF INSTRUCTION FOR DISADVANTAGE GIFTED STUDENTS: A SYSTEMIC CHANGE MODEL

Deborah J Abell, Morehead State University

It is often difficult to distinguish between truly gifted children and children whose background has been so enriched that they perform well on standardized measurements of intelligence and achievement. On the other hand, children from economically deprived backgrounds whose parents were not very successful in school themselves often do not have the opportunity to learn how to perform academically in a way that will ensure success in school and inclusion in a gifted/talented (GT) program. In order to try to not miss including at-risk students in GT programming, three schools have started a program designed to promote systemic changes in the way teachers teach to include differentiation of instruction in the regular classroom setting.

This study conducted teaching observations and analyzed surveys of students, parents, and teachers in three middle schools in three Kentucky school districts to determine whether a combination of sustained school-wide professional development and in-depth training of a smaller cadre of teachers is an effective model for effecting changes in teaching behavior. The school-wide professional development was found to be effective in providing "awareness" level instruction to teachers and sensitizing them to the needs of disadvantaged gifted students. However, the ongoing training provided to a cadre of teachers seeking gifted education teaching certification was found to be key to systemic change at each of the three schools. Teachers in the buildings turned to the cadre teachers to help them implement the practices they had learned in the professional development and to help them problem-solve when the practices did not work smoothly.

A descriptive analysis of parent, student and teacher surveys revealed systemic changes are taking place in identification practices and differentiation of instruction. A comprehensive review of the literature of gifted education for the economically disadvantaged and suggestions for future research were included.

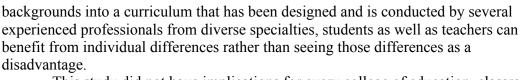
## TEAM TEACHING: INTEGRATION OF SPECIAL NEEDS STUDENTS TO REGULAR CLASSROOMS

Dana Lynn Key, The University of Alabama

This stdescribed the experiences and evolution of three teacher interns durin the in nship placement with regard to: (1) their effectiveness in teaching inclusio udents, (2) the opportunities for practicing effective strategies and pedagogsk ills, (3) the challenges and rewards of team teaching, and (4) needs for professional development. The study was designed by the researcher to direct those interns toward a more effective internship and transition to the first year of teaching.

These interns were participants in a phenomenological qualitative study to determine and explore ways in which teacher educators could most effectively plan and implement curricula and internship experiences to best serve the special needs students, classroom teachers, and teacher interns. The researcher collected data from January through April from focus groups, interviews, and document analysis. There were checks for triangulation of data, and peer debriefing, and member checks to assure validity and reliability. The researcher produced extensive field notes during observations and evaluations.

As the new millennium begins, teachers and teacher educators are searching for ways to better address and serve the diversity of students' needs and abilities. Standards for learning in education have recommended that teachers reevaluate how they teach, how students learn, what should be taught and to whom. By combining students of all



This study did not have implications for every college of education, classroom, intern, or teacher; however, it did reveal insight into the world of the inclusion classroom experience of teachers and special needs students.

3:00-3:50 p.m. STATISTICS (Training Session) Meeting Room 5

### USING SPSS TO CONDUCT MULTIPLE REGRESSION: AN OVERVIEW

Anthony J. Guarino and Jerry Mathews, Auburn University

This introductory workshop was designed to provide a basic understanding of multiple regression (MR) procedures. Participants learned that MR is an extremely flexible procedure that can be utilized in both experimental and non-experimental research. Emphasis was on the conceptual application of MR (there was a minimal emphasis on the mathematical derivation of the formulas). This workshop was for any researcher who would like an introduction or a refresher course in basic multiple regression research methods.

Topics included: (1) detecting outliers and their influence on coefficients, (2) interpreting R and R Square, (3) understanding the differences between the B-weights and the Beta-weights, (4) comprehending the differences between the Part and Partial Coefficient, and (5) appreciating the theoretical differences in a simultaneous, stepwise, and a hierarchical analysis.



# Wednesday, November 15, 2000

### 4:00 & 5:30 P.M.

4:00-4:50 p.m. SCIENCE EDUCATION (Discussion Session) Salon A

Presider: Bonita White, The University of Memphis

EIGHTH-GRADE SCIENCE TEACHERS USE OF INSTRUCTIONAL TIME: COMPARING OUESTIONS FROM THE THIRD INTERNATIONAL MATHEMATICS AND SCIENCE STUDY (TIMSS) AND NATIONAL SCIENCE FOUNDATION QUESTIONNAIRES

Anne B Davidson. George Mason University

Did the Third International Mathematics and Science Study (TIMSS) ask eighth- grade science teachers the right questions about their use of instructional time? TIMSS asked teachers to recall a lesson that they had taught, and, then, to group activities into 11 categories. This study examined the TIMSS question "How did the lesson proceed?" by videotaping six classes of eighth-grade science in Alabama and Virginia and comparing observer coding of the video to the teachers' recalled descriptions of the same class.

The manner in which the TIMSS data were collected and manner in which data were collected from teachers in this video tape study suggested the use of a repeated measures analysis of variance (ANOVA) model. Using a repeated measures analysis allowed a look at the interactions between teachers and observer and the 11 TIMSS activities, between teachers and observer and the 26 NSF student activities, and between teachers and observer and the 11 NSF teacher activities.

The difference between observer and teacher responses using TIMSS categories was not significant; however, 43% of the total variance was explained by whether the teacher or the observer reported the times for the instructional activities. The teachers also responded to questions from the NSF Local Systemic Change Through Teacher Enhancement K-8 Teacher Questionnaire to describe the same class. The difference found between the teacher and the observer coding was not significant, but the amount of variance explained by the data source (observer or teacher) dropped to 33% when using NSF student activity categories and to 26% when using NSF teacher activity categories.

The conclusion of this study was that questionnaires to survey science teachers about their instructional activities should include operational definitions, methods of classifying single activities into multiple instructional categories, and questions that are more accurate in describing quality science instructional activities.

### USING COVER, COPY, COMPARE TO TEACH STUDENTS WITH DISABILITIES PARTS OF THE HEART

Tawnya J. Smith and Karen I. Dittmer, Mississippi State University, and Christopher H. Skinner, The University of Tennessee-Knoxville

Students with learning disabilities often have difficulty across content areas. Various procedures have been developed for use with these students. Cover, copy, compare is a self-management procedure that allows students to acquire and generalize strategies allowing them to guide and regulate learning and performance. The purpose

of this paper was to extend the research on cover, copy, compare procedure across students with learning disabilities in the content area of science.

Three high school students with specific learning disabilities in a science special education class participated in the study. Students were instructed the techniques of CCC to learn 15 parts of the heart. During each session, students were given a copy of a heart diagram with all of the parts labeled on the outside of a manilla file folder. The inside contained three unlabeled diagrams with three liens for each part of the heart. Students were instructed to look at the labeled diagram and then open the folder completely and write the names of the first five parts of the heart on the unlabeled sheet. The students were to then check their answers. If the student did not label the part correctly, the student was to write the correct answer two more times on the blank lines adjacent to the first response. After each session, assessments were given to determine learning.

The results of the study suggested that students with learning disabilities were able to learn the parts of the heart using a CCC procedure. Learning occurred over 11 sessions, and an average of 80% accuracy across all students was obtained for each set of the five heart parts.

### COGNITIVE ILLUSIONS AS HINDRANCES TO LEARNING COMPLEX ENVIRONMENTAL ISSUES

Fred H. Groves and Ava F. Pugh, University of Louisiana at Monroe

The purpose of this study was to determine the effectiveness of an environmental science course for teaching the ozone depletion problem. Students were pre- and posttested in the spring 2000 semester with a 38-item questionnaire consisting of three sets of Likert-style statements, plus multiple choice questions. The first group of statements centered on results of ozone depletion, the second set on causes of ozone depletion, and the third set targeted ways to lessen ozone depletion. The seven multiple choice questions targeted factual information. The Likert- style rating ranged from "I am sure this is correct" to "I am sure this is wrong." The course, Life in the Environment, focused on current environmental issues, including global warming and ozone depletion. The instructional format was lecture/discussion supplemented by Power Point presentations.

Overall, posttest scores were lower than pretest scores, and students showed a strong tendency to conflate cause/effect relationships between several different environmental issues that are not actually related. This matches with previous research and indicates that as students become more generally aware of environmental problems, they tend to assume relationships that are not correct. This is especially pronounced for global warming and ozone depletion, with most students incorrectly believing that ozone depletion leads to global warming when the reverse is true, that global warming may increase ozone depletion. These results revealed the difficulty in guiding students to construct proper concepts for complex subject matter by means of traditional, direct instruction methods, even with the use of presentation devices such as Power Point. Students must be challenged to see that their prior assumptions do not properly accord with current explanations for complex problems, and they must be guided to develop sound concepts.

4:00-4:50 p.m. STUDENT ACHIEVEMENT (Discussion Session) Salon B

Presider: Cathy Stockton, Louisiana Tech University

### UNDER FIRE: OUTCOMES OF A HIGH SCHOOL'S TUTORING EFFORTS IN THE WAKE OF A STATE TAKEOVER

Dennis C. Zuelke and J. Gordon Nelson, Jacksonville State University

The problem was the process and outcomes involved in a small city high school's tutoring program for at-risk students (school enrollment under 300 students grades nine-twelve). The problem grew out of a state takeover of the high school in 1999-2000 because of low standardized achievement test scores. Though a nonprofit community agency had abandoned its after-school tutoring program in the city's schools, the high school's staff decided to continue tutoring on its own.

Two professors from a local university pursued an assessment plan that included a template of variables, variable definitions, and data matrix. At least 25 volunteer tutees were subjected to the assessment. Twelve independent variables, plus Piers-Harris Self Concept Scale scores, were used with two dependent variables, reading and math end-of-year grade point averages (spring 2000 standardized test scores for the tutees also were used). Among the independent variables were hours tutored, type of tutoring (including kinds of tutors used), tutor pay, and tutee absenteeism.

When tutoring ended in mid May 2000, the high school's staff collected the data and entered them on a computer spreadsheet. The staff prepared a computer data diskette that was then given to the professors. The professors used SPSS software to analyze the data from the diskette with descriptive statistics (including single order correlations).

The tutoring literature clearly indicated that personalized tutoring with qualified tutors, including peer tutors, had a positive influence on student achievement. Contrary to the literature, prior years' assessments of the nonprofit community agency's after-school tutoring program in the city schools showed that achievement among tutees in reading and math did not improve. The professors determined the findings from the data analyses during the summer 2000. The findings may be instrumental in the state's decision about what to do with this high school in 2000-2001.

### STUDENT MOTIVATION IN LARGE SCALE ASSESSMENT

Beverly M. Klecker and Robert Wetter, Kentucky Department of Education

Student motivation in large scale assessment has been the focus of few research studies (O'Neil, Sugrue, & Baker, 1996; DeMars, 1999). The school is the unit of analysis for Kentucky's accountability assessment. Aggregate scores are accurate only if students respond with good faith effort. This study was designed to explore: (1) the status of the problem and (2) possible solutions.

Data for this study were responses to student questionnaires by fourth-(N=45,751), seventh- (N=47,772), and eleventh- (N=19,546) grade students taking the Reading assessment and fifth (N=46,532), eighth (N=47,324), and 11th (N=19,308) grade students taking the Mathematics assessment (questionnaire matrixed for the 11th grade) Questions were "How hard did you try on this reading (mathematics) test?" and "How many of the reading (mathematics) questions tested things you learned in school?"

Percentages of student responses were compared by grade level, gender, and race. The percentage of students reporting that they either "did not try" or "tried a little" increased as grade level increased for both content areas. Percentages of students who reported that they were taught either "none" or "some" of the material assessed also

increased by grade level. A surprising 38.2% of students taking the eleventh-grade Reading assessment and 43.2% of eleventh-grade students taking the Mathematics assessment responded in this manner. Percentages of males responding "did not try" or "tried a little" was higher than the percentage of females at every grade level in both subjects. Most striking was the difference in eleventh-grade Reading (Males=18.17%, Females=8.41%). The differences in percentages between African American and white students decreased as grade level increased in both subjects.

The confounding of student motivation and student knowledge and possible strategies for increasing student motivation were discussed.

#### PRE- AND POST-KERA STUDENTS' WRITING SKILLS - A COMPARATIVE STUDY

Qaisar Sultana and Lisa Kay, Eastern Kentucky University

In 1989, Eastern Kentucky University (EKU) implemented the University Writing Requirement (UWR) as one of EKU's standards for graduation. The UWR consists of a prompt that is occasionally repeated. Students write a comprehensive essay on the prompts, which are scored by trained readers according to a rubric.

The Kentucky Educational Reform Act (KERA) was passed in 1990. The center piece of KERA is accountability measured through the Commonwealth Accountability Testing System (CATS). One component of CATS is the writing portfolio. Since 1991 all fourth, eighth, and twelfth graders do the writing portfolio.

This study was conducted to determine whether the writing skills, as measured by the UWR, of Kentucky high school graduates who underwent the CATS writing portfolios, had improved as compared to their pre-KERA peers. Specifically, the objectives were to: (1) compare the UWR scores of pre- and post-KERA students and (2) determine the significance of the difference.

The researchers randomly selected 50 each UWR essays of Kentucky's high school graduates on a prompt, Spectators Sport, given in fall 1989 (Pre-KERA) and summer 1997 (post- KERA). The pre- and post-KERA groups were recorded by the last four digits of the social security number. Each essay was xeroxed to mask the effects of aging. Four UWR trained and experienced readers were asked to score the essays. They were not given any information pertaining to the purpose or methodology of the research.

The scored essays were separated into pre-KERA and post-KERA groups using the four digits of the social security numbers. Means of the two groups were computed and t-tests were performed to determine the significance of the difference. No significant differences were found at any level between the means of the two groups. Results have implications both for UWR and CATS.

4:00-4:50 p.m. TEACHER EMPLOYMENT (Discussion Session) Meeting Room 1

Presider: Barbara Kacer, Western Kentucky University

TEACHER INDUCTION: IS THIS THE ANSWER TO TEACHER RETENTION?

Cheryl J. Cummins and Camille B. Branton, Delta State University

One issue facing many schools is the recruitment and retention of quality teachers. Teachers are becoming disillusioned and leave the profession within the first two to five years. Others fail to even teach at all. One of the major reasons novice teachers give for abandoning the professions is the lack of support and assistance in the

beginning years.

What is the answer to teacher retention? Schools are now establishing teacher-induction programs to aid in the recruitment and retention of quality teachers. This paper addressed the role teacher induction plays in helping transform preservice teachers into competent seasoned professionals. Included was a discussion of the most common components of teacher induction programs such as mentoring, peer coaching, orientation inservice, and teacher-guided observations. A discussion of the importance of classroom management skills, student discipline techniches, and professional obligations was held as well.

### THE ATTITUDES, CONCEPTUALLY CONSISTENT WITH OCCUPATIONAL BURNOUT, HELD BY UNITED STATES TEACHERS

Paige L Tompkins, Western Kentucky University

Based on (1) the importance of the retention of a quality teacher workforce as an education policy concern, (2) recommendations from researchers to give greater consideration to the role that teachers' attitudes and perceptions play in teacher burnout and subsequent attrition from the teaching profession, and (3) past research implicating burnout as the impetus for some of the most qualified teachers to leave teaching, the purpose of this study was to identify what attitudes and perceptions (conceptually consistent with occupational burnout) have been held by United States teachers. In order to determine, on a national level, what attitudes and perceptions were held, data from the latest round (1993-94) of the Schools and Staffing Survey (SASS) were used. This survey was conducted by the National Center for Education Statistics (NCES) of the United States Department of Education. These data were weighted by NCES to provide national estimates, thereby enabling conclusions generalizable to the nation's population of teachers.

To determine the attitudes and perceptions held by United States teachers, more than 40 survey items assessed by the 1993-94 SASS were used. The latent dimensions measured by the SASS items were obtained through an exploratory factor analysis. For reasons of practicality and ease of interpretation, the factors, representing composites of the SASS items, were then used as the indicators of teacher attitudes and perceptions for all subsequent analyses.

Implications for educational policy decisions regarding the retention of a quality United States teacher workforce included the amount of attention paid or not paid to the severity of attitudes consistent with occupational burnout, and the role these attitudes play in teacher attrition.

#### ESTABLISHING CUT SCORES FOR INITIAL TEACHER TESTING

Donna E. Pascoe and Glennelle Halpin, Auburn University

The school reform movement experienced during the previous decade turned attention on teachers and their qualifications to teach. With findings that indicate that the quality of teachers is related to the improvements in student performance, the push for better qualified teachers has intensified (Darling-Hammond, 2000). By increasing educational standards to improve educational outcomes, teachers are required to show that they have acquired the basic educational skills necessary to teach. These basic competencies are most often measured by standardized criterion testing. The practice of teacher testing for initial licensure has been instituted in 35 states with more to follow (NASDTEC, 1999).

This review of literature investigated past and current trends in standard setting

for initial teacher licensing and an account of the methodology used to determine the cut scores for each state. A state-by-state compilation of how standards are set in the licensure process is included. The standard-setting process discussed includes four sections: (1) planning, (2) the passing score study, (3) setting the passing score, and (4) evaluating the effects of using the score. The findings of this review of literature should assist those state departments of education needing procedural directives for determining a cut score.

4:00-4:50 p.m. STATISTICS (Discussion Session) Meeting Room 2

Presider: Larry G. Daniel, University of North Florida

CREATIVE USES OF FACTOR ANALYSIS IN PSYCHOTHERAPY RESEARCH: PAST EXAMPLES AND FUTURE POSSIBILITIES

James M. Adams, The University of Southern Mississippi

Of general linear model analyses, factor analysis has been dubbed as the "reigning queen of the correlational methods" (Cattell, 1978, p. 4). Indeed, factor analysis is an extremely flexible data analytic method that allows researchers to examine multiplicities in simpler terms. Most commonly, factor analysis is invoked to reduce multiple variables (typically items on attitudinal or achievement tests) into a smaller set of factors.

However, the logic of factor analysis can be applied to many research situations in which variables are not the units being factored. For example, in so-called higher order factor analysis, factors themselves are factored in an attempt to determine whether the factors can be further summarized by one or more higher order factors. A commonly recognized example of this application is the currently popular Big Five factor model of personality, in which many variables have been used to identify personality characteristics, and these characteristics have, in turn, been summarized by five major aspects of personality.

Furthermore, factor analysis can be applied to factor other units such as people and occasions. These two-mode analyses are generally limited by the creativity of the researcher. Essentially, whenever the researcher has reason to believe that units of analysis (whatever they may be) will cluster into meaningful subgroups, some form of factor analysis can be invoked to examine this possibility.

The purpose of this paper was to provide an introductory framework for the many applications possible for factor analysis beyond the traditional factoring of variables. Both higher order and two-mode factoring were discussed regarding their theoretical foundations and potential applications. Furthermore, uses of these methods in psychotherapy research were reviewed, including discussion of examples from published literature. The role of factor analysis in examining future trends in psychotherapy research was also examined.

### TOWARD REFLECTIVE JUDGMENT IN EXPLORATORY FACTOR ANALYSIS DECISIONS: DETERMINING THE EXTRACTION METHOD AND NUMBER OF FACTORS TO RETAIN

Jennifer L. Knight, The University of Southern Mississippi

Factor analysis is frequently used to reduce variable complexities into more parsimonious models. While the logic of factor analysis allows for factoring people, occasions, and other units in two-mode strategies, factor analysis is most frequently

applied to variables in both measurement and substantive studies.

In exploratory factor analysis (EFA), many decisions must be made about how to proceed with the analysis. The impact of these decisions on the results obtained can be substantial. As such, each decision should be reflective of thoughtful researcher judgment in the context of the individual study. Unfortunately, empirical studies indicate that many researchers over-utilize default selections in statistical software packages. While these defaults are appropriate for some contexts, superior methods are often available.

The paper addressed three EFA decisions in an attempt to present options available to the researcher. The primary purpose was to aid the researcher in making informed decisions during the factor analysis instead of relying on defaults in statistical programs or traditions of previous researchers. First, the importance of determining the number of participants and variables was discussed. Second, the similarities and differences in the two most common factor extraction methods, principal components (PCA) and principle factor analysis (PFA), were addressed. Finally, the paper compared accuracy of different methods for retaining factors (e.g., K1 rule, scree plot).

Although PCA and PFA results converge with increasing numbers of variables and communality estimates, PFA may be the better choice for attempting to determine underlying factors. Furthermore, parallel analysis and minimum average partial methods show great promise to facilitate precision in factor retention. However, researchers should take into consideration a combination of methods in order to be as accurate as possible in developing the factor model. Empirical studies indicate that superior methods (e.g., parallel analysis) are often grossly underutilized.

## AN EXAMINATION OF STATISTICAL TESTS USED TO DETERMINE THE NUMBER OF COMPONENT SUPBPOPULATIONS IN A FINITE MIXTURE MODEL

Frank R. Lawrence and James E. McLean, The University of Alabama at Birmingham

The most fundamental parameter in the definition of a finite mixture distribution is k, the number of component subpopulations. Its importance derives from technical considerations and from its role in subsequent analyses.

Techniques exist for estimating k. Formal techniques for estimating k involve statistical tests. The Akaike Information Criterion (AIC) has been used in a mixture modeling context to determine the correct value for k. The AIC is used for testing nonnested models with different values of k (AIC = -2\*logL+2\*r where r is the number of free model parameters).

A second test for k, uses the Bayesian Information Criterion (BIC). The BIC is computed from the log likelihood (BIC =  $-2*\log L + r*\ln n$ ) where r is as above and n is the sample size. The BIC values are plotted against k for a series of theoretically plausible models. The value of k corresponding to the break in the BIC curve is taken to be the candidate model.

Finally, the Bayes factor (Bk) has been used to determine the number of subpopulations in the data. The Bayes factor represents the posterior odds that the alternative hypothesis (H1: k > 1) is correct versus a null hypothesis (H0: k = 1) given the data. The larger the value of Bk the more likely the alternative hypothesis is true.

4:00-4:50 p.m. PROFESSIONAL DEVELOPMENT (Training Session) Meeting Room 5

LIFE AFTER THE DISSERTATION: PREPARATION FOR THE ACADEMY AND FIELD

Carol A. Mullen, Richard C. Kunkel, Rhonda Porter, and James E. Witte, Auburn



University, and Carolyn Reeves-Kazelskis, University of Southern Mississippi

A panel of deans, professors, editors, guest editors, published authors, chairs of search committees, and successful job-seekers provided snapshots of issues related to preparation for the academy and field. This training session offered a broad set of interrelated topics centered on the professional/leadership development of graduate students nearing graduation, job-seekers, and beginning faculty. Novice writers learned tips for conducting well-designed research in the context of work assignments and for publishing.

The subjects covered included the nature of the job market (university), requirements and credentials for academic positions, and networking and other forms of mentoring that promote development, such as organizational involvement through team projects. Publishing issues (i.e., tips for getting started and continuing to publish, strategies for dissemination, venues that include journals, and calls for papers on thematic issues) were shared.

The topics presented featured input from the different panelists. Participants' questions were encouraged, and papers were made available. Participants were asked to imagine that they are learning how to ride a bicycle for the first time in their life: "Jot down words capturing how you would feel riding a bicycle with training wheels. Now record how you would feel riding a bike for the first time without training wheels." Participants shared their lists. The trainers built on the words shared by the audience (e.g., "scary" and "risky" for being without training wheels, and "reassured" and "supported" for being with training wheels). The message was that novice academics must find "training wheels" to support their professional development. Participants returned to their "bicycle" lists to share what they learned (e.g., new understanding and mentoring tips) that provided them with "training wheels" for the academy and field.

5:30 p.m. KEYNOTE ADDRESS Ballrooms B & C



# Thursday, November 16, 2000

### 4:00 P.M.

4:00-4:50 p.m. CULTURE (Discussion Session) Salon A

Presider: Charles McLafferty, Jr., The University of Alabama at Birmingham

EFFECTS ON GENDER, ACHIEVEMENT IN MATHEMATICS, AND ETHNICITY ON ATTITUDES TOWARD MATHEMATICS

Martha Tapia, Berry College, and George E Marsh II, The University of Alabama

The effects of gender, math achievement and ethnicity on attitudes toward mathematics were examined by use of an inventory called Attitudes Toward Mathematics Instrument (ATMI). The inventory was completed by 545 students at a college-preparatory bilingual school in Mexico City, and data were analyzed using a multivariate factorial model with four factors of Math Attitude as dependent variables (self-confidence, value, motivation, and enjoyment of mathematics) and three independent variables: gender, math achievement, and ethnicity. Multivariate analysis of variance was performed. There was an overall significant effect of gender on two of the factors of ATMI. Male students scored higher than female students on selfconfidence and value. Letter grade was significant with A students scoring higher than others on all four factors of the ATMI. A similar relationship of letter grade to factors was found in the hierarchy from B through F students. Failing students were lowest on self-confidence, motivation, value, and enjoyment. There was an overall significant effect for ethnicity on three factors. Mexican students scored significantly higher than American students on self-confidence, value, and enjoyment. Students with dual citizenship, where students had one American parent, scored higher than Americans on the value of mathematics.

### RACIAL DIFFERENCES IN BODY IMAGE ATTITUDES AND SELF-ESTEEM AMONG AFRICAN AMERICAN AND CAUCASIAN AMERICAN FEMALE UNIVERSITY STUDENTS

Eugenie Joan Looby, Mississippi State University

This research examined racial differences in body image attitudes and self esteem among African American and Caucasian female university students. Participants in this study consisted of 641 undergraduate and graduate students attending a major university in the Southeast. The Multidimensional Body-Self Relations Questionnaire (MBSRQ-Cash et al., 1986; Winstead & Cash, 1984) was administered to assess affective, cognitive, and behavioral domains of the body image construct. The Body Area Satisfaction Scale (BASS-Cash et al.,1986; Winstead & Cash, 1984) was used to assess satisfaction with nine discrete body areas including face, hair, height, upper torso, middle torso, lower torso, muscle tone, weight and overall appearance. The Rosenberg Self Esteem Inventory (Rosenberg, 1965) was used to measure global self esteem.

The MBSRQ yielded a variety of results including a significant relationship between race, each subscale, and global self esteem. African American females scored higher than Caucasian females on appearance, seeking medical attention for illnesses, satisfaction with most areas of their body, less preoccupation with weight, and global

self esteem. Results also indicated a negative co-relationship with weight and self-esteem, indicating the more preoccupation with weight related issues, fat anxiety, weight vigilance, and eating restraint, the lower the levels of self esteem. African American females also indicated higher present weights, ideal weights, and most ever weighed than Caucasian females.

Results from the BASS indicated that most participants were satisfied with their face, hair, height, upper torso and overall appearance, with African American females scoring higher than Caucasian females. Results also indicated that although many of the African American females were dissatisfied with their weight and parts of their body, they held more positive attitudes about their overall physical appearance than Caucasian females. Mental health implications, along with suggestions for future research, were provided.

4:00-4:50 p.m. STUDENT ACHIEVEMENT (Discussion Session) Salon B

Presider: Anthony J. Onwuegbuzie, Valdosta State University

#### AN EXAMINATION OF TEACHER SALARY AND STUDENT PERFORMANCE

Eileen Talento-Miller, Mississippi State University

Few would argue with the fact that the American educational system is in need of improvement. This study examined whether changes in teacher compensation, specifically increases in salary, could improve student performance. Studies show that performance-based award systems for teachers can increase their motivation to improve instruction. In examining teacher salaries in different regions, though, it is necessary to take into account differences in the regions themselves; otherwise the data can be misleading.

Data were collected from nine randomly chosen states. Each state's average teacher salary was compared to that state's per capita income and its median household income. Ratios were constructed with the information and correlated to students' average performance on the National Assessment of Educational Progress mathematics assessment by state. Though the resulting correlations did not show statistical significance, the general trend was a negative relationship. This implies that the better the teachers' salaries relative to other salaries in the area, the worse the students' performance. A possible reason for this could be the theory that teacher salary depends on the local teacher market and the concept of supply and demand. In other words, areas that have more teachers available have lower average salaries than areas that compete for the available teachers. Further research should be undertaken to determine the best ways to improve education.

## THE EFFECTS OF ABSENCES AND ACADEMIC SELF-CONCEPT ON ACADEMIC ACHIEVEMENT IN TWO ELEVENTH-GRADE, U.S. HISTORY CLASSES

John L. Byer, University of West Alabama

This study investigated the extent to which eleventh graders' academic achievement in two U.S. history classes was influenced by the number of their absences and by their academic self-concepts. The 34 subjects consisted of 17 males and 17 females. Seventeen of the subjects were Caucasians and seventeen were African Americans. The subjects' number of absences and their academic achievement data were measured by using teachers' grade book records and their academic self-concept

was measured by the Academic Self-Description Questionnaire II. There was a statistically significant (p<.05) relationship between the subjects' number of absences and their academic self-concept and the dependent variable of academic achievement. Twenty-seven percent of the variance in academic achievement was explained by the two independent variables. The conclusions were that the number of absences and academic self-concept were two motivation-related independent variables that explained over one fourth of the variance in academic achievement. Evidence for consistent negative relationships between the number of absences and academic achievement was increased and evidence for consistent positive relationships between academic self-concept and academic achievement was also increased. The implications for classroom teaching were that reducing students' numbers of absences and increasing students' academic self-concepts would be likely to promote increased academic achievement.

#### THE IMPACT OF CLASS SIZE ON ACADEMIC ACHIEVEMENT

Madeline Kay Grantham, Mississippi State University

The question "Are smaller classes better than larger classes?" has been debated in the field of education for many years. Small classes have been a component of special education classes for years. Research has indicated that small classes or groups working with one teacher or tutor are effective in reaching students at risk. This study investigated the effect of class-size reduction in the areas of grades and retention among all students. The study took place in a rural school district. Class sizes for second and third graders were reduced from an average of 24 in second grade to an average of 20 students per class and an average of 25 in third grade to an average of 22 per class. This was done in an attempt to provide more instructional time between teacher and child in order to improve achievement.

The success of this intervention was evaluated by looking at year grade averages in math and reading and the retention rate in comparison with these factors from the previous year. The results indicated positive gains in achievement and a reduction in the number of students retained. Maintenance of small class studies was recommended for the school district.

4:00-4:50 p.m. EDUCATIONAL LEADERSHIP (Discussion Session) Meeting Room 2

Presider: Doug Masini, East Tennessee State University

TEACHER INDUCTION: ROLES AND RESPONSIBILITIES

Camille B. Branton and Cheryl Cummins, Delta State University

Teacher induction programs are an effective method for the retention and improvement of novice teachers. As teacher induction programs are developed, one area of concern is the assignment of responsibilities for carrying out the different components of the programs. It is essential that teacher induction programs have the support and involvement of all areas of the educational community if they are to be successful. Each member of the educational community must be dedicated to the success of the program, and each must fulfill her or his specific roles and responsibilities.

This paper focused on the roles and responsibilities of the members of the educational community including administrators and experienced teachers, as well as

the novice teacher. Principals must provide the appropriate leadership for success. Experienced teachers and mentors must demonstrate a commitment to the support and guidance of the novice teacher. Novice teachers must be willing to take the time to learn and grow as professionals. Specific needs of the new teacher were discussed, and examples of successful existing programs were shared.

### THE RELATIONSHIP OF ADMINISTRATIVE LEADERSHIP TO TEACHER COGNITIVE WITHDRAWAL AND MIGRATION

Gary L. Peevely, Tennessee State University

The increase in student population, immigration, reduction of class size and the aging of the current teaching population is having the effect of creating teacher vacancies in most of the nation's school districts. One report in Education Week indicated that the nation would need two million new teachers in the near future (March 10,1999). However, the PBS Merrow Report, "Teacher Shortage," indicated the shortages to be "self inflicted wounds" for school districts because "schools underpay and mistreat teachers and eventually drive them from the profession." Teachers that migrate from one district to another engage in a complex cognitive process that brings them to the point in their career where they have decided to leave and are actively searching for another position.

This research reported on one facet of a statewide effort to determine the causes of teacher migration. The researcher surveyed 1,434 teachers in Tennessee that had left the employment of one district for another within the state. The survey was designed to determine contributing factors to the withdrawal cognition process teachers undertake prior to their resignation. The satisfaction of teachers with administration and management practices was examined in their former as well as current districts and the degree to which administration and management practices were the deciding or contributing factors to their migration.

The levels of satisfaction of teacher migrants with administrative leadership in their current district of employment indicated that 55% were more satisfied than they were in the district from which they migrated. Fifty-two percent indicated that they were more satisfied with management practices in their new positions. Eleven percent of the respondents indicated leadership or management styles to be the primary factors in their cognitive withdrawal process.

### A SURVEY OF SCHOOL SUPERINTENDENTS ON EMAIL AS A SCHOOL COMMUNICATION VEHICLE

John J. Marshak, The University of Southern Mississippi

Experience tells us that good communication is the backbone of an effective organization. However, technology is changing the nature of communication in the modern work place. This study examined how school superintendents respond to a number of questions posed in a survey on the effect of email on their school systems' communications. Although the survey contained questions on oral and other written communication as well, this study was limited to electronic communication.

Over 600 surveys were sent to a random sample of superintendents across the country. Districts with as few as 13 and as many as 3,000 teachers responded. They were diverse in their geographical distribution.

Questions asked dealt with email's impact on employee communication: Are certain regions of the United States impacted differently? Does the age of the superintendent make a difference in her/his opinion on the impact of email? Does the

size of the district make a difference on the impact? Does the superintendent's own proficiency correlate with her/his opinion on the impact of this kind of communication? Has it made a difference in the quality of written communication? Has email reduced the amount of face-to-face communication between faculty/staff in schools? Has it made a difference in the volume of communication?

All responses were entered as data for analysis by SPSS. Conclusions drawn were shared with students enrolled in The University of Southern Mississippi's master's program in School Administration. It is important that the new leaders in school administration understand the role of this new media element on the communication in their schools.

4:00-4:50 p.m. INSTRUCTION (Display Session) Meeting Room 4

### ANALYZING THE BENEFITS OF A TRADE ASSOCIATION/ ACADEMIC PARTNERSHIP: A FOUR-YEAR CASE STUDY

Susan S. Hubbard, Auburn University

Partnerships with industry can produce numerous advantages for college students and academic programs as well as the public relations efforts of industry segments. In 1996, a grant and partnership effort with the National Association of Concessionaires (NAC), and the Hotel and Restaurant Management Program at Auburn University was established. Recreational food service grossed over \$12 billion last year and served over three billion consumers. The recreational food service industry, therefore, represented a wealth of potential job opportunities for graduates of hospitality management degree programs. This segment represented the second fastest growth area of all of food service that reflected a need for qualified managers and employees.

The objectives of the grant and the partnership development with the NAC included the following: (1) developed a course in Recreational Food Service Management to be offered on the college campus, (2) exposed students to the opportunities available in the recreational food service segment, (3) provided an opportunity for interested students to take the Concessions Manager Certification Examination, (4) provided continuing education opportunities for faculty members teaching the course, (5) allowed members of the academic community to serve on the NAC Scholarship Committee, and (6) developed a pool of potential candidates for career opportunities in the recreational food service segment.

The presentation outlined the components of the partnership and the benefits that developed for students, faculty, and the recreational food service industry as a direct result of the grant and partnership opportunity. Goals and objectives of the grant as well as tangible benefits directly related to the partnership were analyzed and discussed. The grant was funded in 1996, and results from the four-year association were examined. This effort can be duplicated as a model program for creating association/academic partnerships.

#### INTERNATIONAL TRAVEL DAY: AN INTERDISCIPLINARY PROJECT

Gahan Bailey, Kathy Jordan, Keith Kull, Rebecca McMahon, and Edward Shaw, University of South Alabama

Faculty members teaching in the undergraduate sequence sections (method

courses) implemented an innovative instructional technique with their students during the spring 2000 semester. In cooperative groups, students researched and made presentations on specific countries that were chosen randomly by the groups.

The students were to create a display board, two food dishes representing their country, and orally present their country to the sequence students, faculty, and visitors. Although they were given much leeway regarding the display and presentation, they were given specific directions to incorporate K-6 learning activities targeting the sequence disciplines: Language Arts, Social Studies, Science, Math, and Reading.

Some groups were very creative in their presentations by writing and acting out skits to tell about their country. All groups incorporated the use of technology by searching various web sites on the Internet. Tri-fold display boards were used and decorated with the country's flag, symbols, a map of the country, and pictures depicting life in the selected country. Several groups brought artifacts from their respective countries, and some members dressed in costume. After the presentations, the students, faculty, and visitors sampled the various foods, viewed the displays more closely, and held informal discussions about the countries being presented.

Qualitative feedback was received from the students regarding the success of the project, as well as ways to improve upon it. The sequence faculty members shared ideas with others during a roundtable discussion (display). The presenters presented digital pictures via Power Point, samples of student display boards, lists of recipes, written reports compiled by students, and student and faculty reflections. The audience joined in an informal discussion regarding interdisciplinary thematic projects.

#### TEACHING PROFESSORS: AN ANALYSIS OF EFFECTIVE TEACHING STRATEGIES

Vicki A Wilson, Wilmington College, and Linda W. Morse, Mississippi State University

Despite a renewed interest in recent years in placing more emphasis on effective college teaching, little research has been conducted that examines the behaviors of effective college teachers. Many beginning college teachers enter the classroom with no formal education in college pedagogy, and change usually comes through experience and advice from others that may be more anecdotal than research based.

The purpose of this display was to present the results of an analysis of effective strategies reported in 29 issues of *The Teaching Professor*, a journal aimed specifically at improving college teaching. Each of the articles was examined to identify and categorize teaching strategies for effective practice.

The following themes emerged: (1) engagement of students in the learning process through writing assignments, effective questioning, and lecturing techniques that included interesting openings and metacognitive moments, (2) empowerment of students through cooperative learning, choice of assignments, and extended feedback to the instructor, (3) techniques for making sure students know and understand course objectives, (4) treatment of students, (5) use of projects and other "real life" teaching/learning strategies, (6) testing, and (7) use of computers and other technology in the college or university classroom. Three articles used extended metaphor to describe teachers as jazz musicians, baseball strategists, and Sherpa guides in the expedition of learning.

The display included a listing of the articles supporting these themes, as well as summaries of salient points. Discussion of these techniques, both individually and as part of a comprehensive approach to teaching, should be useful to both beginning and experienced college teachers.

Participants in the session were asked to complete a questionnaire designed to elicit the extent to which professors use the techniques described in the articles. This project served as a pilot for a more extensive survey of faculty in various disciplines in



research universities and "teaching" colleges.