



7:30 a.m.-9:00 a.m.	BREAKFAST FOR MSERA PRESIDENTS Card Room
8:00 a.m.-10:00 a.m.	REGISTRATION Azalea Foyer
9:00 a.m.-9:50 a.m.	AWARD CANDIDATE PAPER: DRUG EDUCATION, PARENT INVOLVEMENT, AND TECHNOLOGY
Session F#001	(Discussion Session) Salon A

PRESIDER:Robert L. Kennedy, University of Arkansas at Little Rock

DRUG AND ALCOHOL USE IN MIDDLE AND HIGH SCHOOL: AN ANALYSIS OF COHORT GROUPS FORMED BY RACE AND SEX

Ronald D. Adams and Mark E. Pitcock, Western Kentucky University

This study utilized over one million questionnaire responses from middle and high school students archived by the Parents' Resources Institute for Drug Education, Inc. (PRIDE) for the years 1990-91 through 1997-98. The purpose was to compare drug and alcohol use over the eight-year period for cohort groups formed by the demographic variables sex and race. Percentage tables were constructed for each drug category by cohort group across the eight-year period. Analysis allowed for a comparison across years by cohort group and also analysis across cohort groups for the most current year, 1997-98.

An increase in cigarette use was noted for all high school students with white American students having the greatest percentage of use. For all ethnic groups, a greater percentage of males than females reported drinking beer while the opposite was true for wine coolers.

All cohort groups reported dramatic increases in marijuana use from 1990-91 to 1997-98. African American students had the greatest rate of increase at both the middle and high school levels with 351% for middle school males and an incredible 700% for middle school females. White American students had high rates of increases at the middle and high school levels of well over 100%. However, Hispanic American males reported the highest percentage of marijuana use at over 40%.

Cocaine use increased for all cohort groups over the eight-year period, with Hispanic American students using nearly double the other ethnic groups. There was an increase in percentage of hallucinogen use at the high school level for all cohort groups with white American and Hispanic American males having the greatest percentage of users.

Data from this study strongly suggested that drug prevention and education programs be continued and strengthened to combat the high and often increasing trend in alcohol and drug use among middle and high school age students in the United States.

EXPERT SYSTEMS AS A MINDTOOL TO FACILITATE MENTAL MODEL LEARNING

Susan Dale Mason, University of South Alabama

This exploratory study investigated the question, "Does the creation of an expert system facilitate the formation of an accurate mental model?" Thirty-three participants, who reported no knowledge of the subject domain in which the expert system was to be created, read encyclopedia extracts, viewed graphics, and then created small expert systems. The study was conducted via mainframe computer-mediated wide area network, with subjects in three countries, using a variety of communication protocols.

Three measurements were used to assess participants' mental models: (1) Pathfinder technique using PCKnot software, (2) troubleshooting test, and (3) prediction (change of state) test. These three measures were administered at the commencement of the study (pretest), after participants read the text and viewed the



graphics (midtest), and after participants created expert systems (posttest).

Data were analyzed using repeated measures analysis of covariance (ANCOVA) procedures, and follow-up *t*-tests to ascertain the interval in which the greatest increase in knowledge occurred. Scores on all three measures indicated that there were small increases in scores from pretest to midtest, and substantially larger, statistically significant, increases in all scores from midtest to posttest.

In post-study surveys and interviews, participants indicated that their knowledge in the subject domain had increased, that the creation of the expert system had been very helpful in learning the material, and that they had had fun doing it. When used as a mindtool, an expert system becomes a process, not the end product. It is a means to a learning gain by engaging students, fostering their concentration, and assisting them in organizing information. Although not an investigation of distance learning, this study's results also indicated that use of this mindtool was an appropriate technique for distance education.

PARENTS' EXPERIENCE OF CULTURE WITH THEIR CHILDREN'S SCHOOLS

Nancy L. Tarsi, The University of Tennessee, Knoxville

Parent involvement in schools increases students attendance and achievement. This intervention is most important for students from marginalized groups whose academic failure rates continue to rise despite years of programmatic attempts to ameliorate the problem. Parents are difficult to recruit and maintain in involvement programs, despite cross-cultural studies that reflect strong and consistent verbal support for their children's academic success. This research proceeded from the belief that cultural mores effect parent-school relationships; some of whose traditions may be inconsistent with assumptions that are built into school-designed parent involvement programs.

Phenomenological interviews with 15 parents were conducted in a rural mountainous community in southeastern United States. Through the use of non-directive techniques, was gained an understanding of the shared experience of parent involvement for one group of parents. Three themes were identified as making up the essential structure of the experience.

The first was relational. Parents experience schools as extensions of the familial relationships that characterize the community. The world that they occupy is set in a context of historical traditions developed over generations. The second theme centered on the kinds of education that parents want for their children. Participants spoke alternately of teachers bringing all children up to the "right level," encouraging them to reach their potential, and teaching children how to live in the world. The emphasis is on the meaning of learning. The third theme revealed the centrality of the community culture to the residents of this mountain town. Traditions, common knowledge, tacit understanding, and a shared heritage join the residents in commitment to each other and to the town. The themes were outlined with portions of parent narratives from which the summary analysis emerged.

9:00 a.m.-9:50 a.m. RESEARCH METHODS
Session F#002 (Discussion Session).....Salon B

PRESIDER:Linda Cornelious, Mississippi State University

FACTORS INFLUENCING PURSUIT OF HIGHER EDUCATION: EXPLORING THE FACTOR STRUCTURE OF A QUESTIONNAIRE

Sandra M. Harris and Glennelle Halpin,
Auburn University

The purpose of this study was to investigate the factor structure of the literature-based, researcher, developed Factors Influencing Participation of Higher Education (FIPHE) Questionnaire.

Participants were college students enrolled at a large, traditional land-grant university during the



1998 fall quarter. Participants were recruited through course instructors from a general studies psychology course and from several sections of an educational psychology course. Each instructor read an announcement that detailed the requirements for the study. Participants completed the questionnaires at home and returned them either to their instructors or to a place designated by the researcher.

An exploratory factor analysis was performed to determine the degree to which the data conformed to the literature-based scales established by the researcher. The Bartlett Test of Sphericity revealed that the correlation matrix was appropriate for factor analysis; therefore, the data were subjected to the factor analytic procedure. Principal axis factoring using both varimax and oblique rotations was the extraction method that was used. The varimax rotation produced the most meaningful interpretations.

Initially, 10 factors were specified as the extraction criteria. However, results from the factor analysis revealed that a nine-factor solution was as effective as a 10-factor solution in defining the data set. The nine-factor solution accounted for 37% of the common variance, whereas the 10-factor solution accounted for 38% of the variance. To achieve a degree of parsimony, the nine-factor solution was accepted. The nine-factor solution, with a few exceptions, was consistent with the hypothesized structure of the questionnaire. Results of the study provided evidence that the FIPHE Questionnaire is a potentially useful instrument that can be used to investigate the factors that influence individuals to pursue higher education.

MULTIDIMENSIONAL SCALING: RESEARCH FROM A COUNSELING PERSPECTIVE

Marilyn S. Snow and Camille B. Branton, Delta State University

Research continues to be an important aspect of counseling and the development of theory. However, there is a greater and greater emphasis on multiculturalism, diversity, and a realization that our society is constantly redefining and constructing new perspectives. The logical positivist position of an ultimate reality that is available from a scientific approach without the interaction of the researcher and research has become an inappropriate approach when considering diversity and multifaceted social realities.

In attempting to move towards a more interactive research for counseling and to also stay within the structure of quantitative analysis, multidimensional scaling (MDS) provides the quantitative approach, allowing a perceptual space for the participants and a component of interaction for the researcher. This presentation provided an overview of the multidimensional approach to research.

Multidimensional scaling is an analysis that provides the researcher with a method for understanding the perceptions of the participants of a study and allows diversity of different populations to be considered. Simply speaking, MDS measures the perceptual distances between variables and provides an overview of the spatial location of variables within several dimensions. Unlike factor analysis, which provides a view of what items on a particular instrument are related, MDS provides a view of what variables are related and unrelated. The research presented as an example of MDS came out of a study in a jail that housed a diverse population.

IMPACT OF THE NUMBER OF RESPONSE CATEGORIES ON FREQUENCY SCALES: AN EXAMINATION OF INFORMATION OBTAINED, RELIABILITY, AND FACTOR STRUCTURE

Gail H. Weems, The University of Memphis

This study examined the impact of the number of response categories to frequency scales. Specific areas addressed were inclusion or exclusion of a neutral category, scale reliability, factor structure, and information obtained.

Questionnaires were developed from the College Student Experiences Questionnaire and used with the permission of Indiana University. Questionnaires consisted of frequency items pertaining to involvement with faculty, course learning, library experiences, and experiences in writing. All questionnaires were composed of identical items; however, five different versions of the questionnaire were developed by altering the number of



response categories from three up to seven. The final sample consisted of 1078 questionnaires completed by undergraduate students in developmental studies, mathematics, and history courses.

Initial results indicated a need for more response categories on the form offering only three alternatives. This was evidenced by some respondents creating additional categories of their own. Reliabilities were computed for each of the four scales and compared across the five forms. The hypothesized increase in scale reliability with an increase in the number of response categories was supported in 75% of the comparisons. The most notable increase was between forms three and seven with gains ranging from 5.18% to 7.42%.

Increased selection of the neutral category was evident in the forms with fewer response alternatives. The percentage selecting the neutral category for each item on forms three, five, and seven were 34.63%, 22.90%, and 16.98%, respectively. Examination of scale means for each form revealed insights regarding the neutral category. One might assume that respondents selecting the neutral category would be almost equally divided between the two adjoining categories if the neutral category were omitted; however, in skewed distributions data indicated a disproportionate number selecting the option toward the mode of the distribution. The differences in means were more pronounced for shorter forms than for longer.

9:00 a.m.-9:50 a.m. EXCEPTIONAL EDUCATION
Session F#003 (Discussion Session) Salon C

PRESIDER:Rebecca McMahon, University of South Alabama

**THE LEAST RESTRICTIVE ENVIRONMENT: IS INCLUSION BEST
FOR ALL SPECIAL NEEDS STUDENTS?**

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

During the 1998/99 school year, inclusion classes were implemented in five elementary schools in a north Louisiana parish in order to provide the least restrictive environment for special education students. With the inception of this program, students were placed into regular education settings by decisions made by the special education director and the principal in each building. The question was raised about how these students were selected for inclusion classes and what factors were considered in choosing an inclusion setting over a self-contained setting for students with special needs. The purpose of this paper was to identify the factors that led to the placement of some special needs students into regular classrooms. The literature on inclusion evaluation processes was reviewed, and the results of a case study and the author's personal reflections in an inclusion setting were reported. Interviews with teachers and administrators involved in the program were conducted as well to gather additional feedback.

The information collected suggested that each special needs student required individual consideration in terms of placement following a continuum of choices. Further revision of the Individuals with Disabilities Education Act (IDEA) was recommended to consider such items as costs and parental requests, and that the "stay put" provision should allow alternative arrangements for special needs students who are violent or disruptive. Flexibility was determined to be the most desirable trait imperative to the success of inclusion so that all could be served without compromising the needs of others.

**TOWER OF BABEL: ISSUES IN COMPARING ACCOUNTABILITY
DATA IN GENERAL AND SPECIAL EDUCATION PROGRAMS**

W. Alan Coulter, Louisiana State University Health Sciences Center, and
Jane Nell Luster and John Durrett, Louisiana State Department of Education

The growing emphasis on integrated accountability systems for schools requires that data for



general and special education be combined for purposes of analysis and policy development. However, while educational policies and practices are being increasingly integrated, data for tracking student services and performance are not. The purpose of this study was to examine common student performance indicators (graduation and drop-out) within general and special education databases to determine the feasibility of combined analyses and to explore issues related to integrated data.

Fundamental to any analysis of student performance is the ability to accurately describe and track the student population. States vary in their reporting methods for student data. Within states, the reporting methods in general education are consistently different from those used in special education. To compare general and special education students, a rubric for establishing a common database was first developed.

Graduation from school is an important indicator of school success and one frequently reported in the public media. Routinely, general and special education programs separately report the number of students receiving a diploma in a given school year. However, these reports are not directly comparable given both different definitions of graduation and criteria for which students are reported within a given school year.

A related issue is that of students leaving school without graduation or dropping-out. Despite agreement on a common definition of dropout, general and special education use different data definitions for this term in their separate reports.

This study began by using data from one state to identify problems in combining and comparing general and special education data. Possible solutions that could allow for increasing the comparability in reporting and analyzing graduation data were then generated. Additionally, the issue of establishing a common data definition of drop-out was addressed along with methods of analysis.

9:00 a.m.-9:50 a.m. ADMINISTRATION
Session F#004 (Discussion Session)..... Salon D

PRESIDER:Cynthia Reed, Auburn University

A COMPARATIVE STUDY OF SELECTED EDUCATIONAL ADMINISTRATORS ' AND OTHER ADMINISTRATORS' COMPETENCIES NEEDED TO PERFORM THE TASKS ASSOCIATED WITH ADMINISTRATION

Abraham A. Andero, Alabama State University

The purpose of this study was to identify and compare the competencies needed to perform the tasks associated with administration. This paper described the results of a study inquiring whether the competencies needed by educational administrators (Principal and Superintendent) to perform the tasks associated with administration are different from the competencies needed by administrators (in fields other than education) to perform the same tasks.

Two methods were combined (interview and survey questionnaire) to collect data. In the survey questionnaire, both administrators were asked to rate each of the competencies as most important, very important, and important. Data were collected from a survey of selected administrators (26 educational administrators and 26 other administrators). The survey questionnaires were mailed to all selected administrators in the fall of 1998. Subjects for the interview were located in principals, superintendents and other administrators consisted several places of the selected cities within one of the southeastern states categorized as research two. The results from the interview of selected of a series of semi-structured, open-ended interview that were used to produce finely gained detail and identification of administrators' competencies that are needed to perform the tasks associated with administration.

The primary research question was stated in the null form. The .05 level of significance was used as the basis for rejection of the hypothesis. One-way ANOVA was used to test for differences between educational administrators and other administrators (who were not in school system). Frequency distributions and percentages were also used to analyze the data.

The findings of the study suggested that there was no significant difference between educational administrators and other administrators (not in school system) with respect to competencies needed to perform the



tasks associated with administration.

**ADMINISTRATION IN P-12 AND HIGHER EDUCATION:
SIMILARITIES AND DIFFERENCES**

Angela Maynard Sewall and Tom E.C. Smith,
University of Arkansas at Little Rock

The administration of educational programs has become a profession. Specific training and a wide variety of experiences are needed for individuals to serve effectively in the role of educational administration. Administering educational programs can occur at various levels, including P-12 and higher education. When individuals discuss school administration, for the most part they are referring to P-12 administration. However, in many ways, higher education administration is very similar.

Many of the job responsibilities performed by P-12 administrators are also performed by administrators of higher education programs. For example, both roles include budgeting, curriculum issues, personnel issues, and faculty governance. However, although there are some similarities between the roles of P-12 administration and higher education administration, there are also many differences. For example, while P-12 administrators have to deal with parents, this is rarely a concern in higher education. Another significant difference is in faculty governance and personnel issues. While some school systems have moved to site-based management, the degree of autonomy held by P-12 faculty members does not come close to the autonomy exercised by higher education faculty. So, while there are similarities in administering P-12 and higher education programs, there are significant differences.

This presentation explored the similarities and differences of P-12 and higher education administration. Issues examined included budget management, personnel management, curriculum management, faculty governance, faculty evaluation systems, and the definition of power and authority applied to each. Each of these areas was reviewed based on how they are handled by P-12 administrators and higher education administrators. Finally, implications for training administrators for positions in each of these systems were presented.

**PUBLIC SCHOOL ADMINISTRATOR COMPETENCIES: A COMPARISON
OF THE PERCEPTIONS OF STAKEHOLDERS IN ALABAMA**

Mark E. Marshall and William A. Spencer, Auburn University

The purpose of this study was to assess the differences in perceptions toward competencies for public school administrators held by four groups of stakeholders in Alabama's public schools: administrators, teachers, parents, and educational leadership professors. A survey instrument that incorporated the six Interstate School Leaders Licensure Consortium (ISLLC) Standards for School Leaders and their respective indicators measured the views. Four hundred public school stakeholders were surveyed to examine their views concerning the skill areas for public school leaders. Each of the respondents had a vested interest in Alabama's public schools. Although the response patterns differed on the actual rankings of the ISLLC Standards among the four groups, three measures of correlation suggested that the rankings by the four groups were virtually the same.

The multivariate and univariate procedures utilized on the instrument, however, illustrated that differing perceptions did exist among the four groups. Alabama administrators viewed management as a more important skill than did teachers and educational leadership professors. By comparison, the parents surveyed cited ISLLC Standard four as being more of a requisite skill for school leaders than did the professors of educational leadership. Alabama teachers and parents placed more importance on current technologies that support management functions than did educational leadership professors. Similarly, on competencies related to school facilities and space, administrators, teachers, and parents in the state placed more emphasis on this skill than did the professors of educational leadership. Significant differences were also noted on skills relating to the establishment of school and community partnerships. Parents thought public school leaders' skill in this area was



more important than did the professors of educational leadership.

9:00 a.m.-9:50 a.m. PROFESSIONAL DEVELOPMENT
Session F#005 (Training Session)Salon E

TRAINER:John R. Petry, The University of Memphis

WRITING AND GETTING PUBLISHED

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 of submitting manuscripts, criteria for evaluating manuscripts, and ethics in authorship and publishing. Other topics included elements of style: 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 of 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 would give 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.

9:00 a.m.-9:50 a.m. CURRICULUM
Session F#006 (Symposium)Salon F

ORGANIZER: Frances K. Kochan, Auburn University

THEORY AS ESPOUSED AND PRACTICED: EXAMINING
CONTEXT, BELIEFS, AND ACTIONS

The world of curriculum theory is seemingly haunted by recurrent questions about its relevance and relationship to practice. Practitioners often view theory as something “out there in the Ivory Tower,” not related to them or to their practice. The research studies in this symposium, initiated as part of a graduate curriculum class, were undertaken in order to enhance the graduate student researchers’ understandings of the interrelationships between theory and practice. The specific focus of the research was on the impact of context on theory and practice. The framework used was Habermas’ cognitive interests as interpreted by Grundy and applied to teaching and learning environments. The studies used qualitative research methods to examine and analyze the teaching/learning situations.

Overview

Frances K. Kochan, Auburn University

The organizer presented an overview of the studies, the framework used, and the purposed addressed. The organizer also summarized the overall findings as they related to implications for theory and practice.

Theory and Practice: Examining Others: Examining Ourselves



Mark Rowicki, Floyd Magnet School, Montgomery (AL) City Schools

This study examined the theoretical beliefs and practice of a high school science teacher. The researcher selected the teacher because they shared common beliefs and their practice was very similar. Results indicated that, although the teacher's practice was closely aligned with his theoretical beliefs, organizational and personal constraints sometimes caused him to teach in ways they were not consistent with his beliefs. The importance of contextual factors and issues related to overcoming them were shared.

Matching Actions to Words: Espoused and Practiced Theory in Middle School

Candace Kindberg, Miscokee (GA) County Schools, Columbus

This study investigated the theoretical beliefs and practice of two middle school science teachers, a male in his second year of teaching, and a female with 28 years of experience. Both teachers were fairly consistent in applying their theory to their practice, but subtle differences were discovered in their understanding of the context in which they functioned. Issues of gender and experience were discussed.

Staying with the Tried and True: The Limiting Effect of Success on Theory and Practice

Teresa Irvin, Columbus State University

This researcher studied the theory and practice of a high school English teacher who is considered very successful. Results indicated that the teacher used a very technical, controlling approach in her teaching, for which she was rewarded by student success and school recognition. Questions of the value of varied teaching strategies, the purposes of schooling, and the role of success in hindering self-reflection and inquiry were examined.

Theory as Espoused and Practiced in a Technical College: Does Training Matter?

Dara Padgett, Nestor Consultants, Fort Benning

This study focused on the theories and practice of two electronics instructors, one with formal teacher training and the other with none. The researcher conducted instructor and student interviews, classroom observations, and reviewed documents. Both instructors had a strong relationship between their espoused theory and their practice. The most interesting difference found was that one seemed more student-centered; the other, more subject-centered. The impact of preparation in teacher training and students' perceptions of their instructors practice, were highlighted.

10:00 a.m.-10:50 a.m. AWARD CANDIDATE PAPERS: STATISTICS
Session F#007 (Discussion Session)..... Salon A

PRESIDER:Glennelle Halpin, Auburn University

**INTERPRETING STATISTICAL SIGNIFICANCE TEST RESULTS:
A PROPOSED NEW "WHAT IF" METHOD**

Kevin M. Kieffer and Bruce Thompson, Texas A&M University

As the 1994 APA publication manual emphasized, *p* values are affected by sample size. Thus, it can be helpful to interpret the results of statistical significance tests in a sample size context by conducting so-called "what if" analyses. The author guidelines for the journal published by the Association for Assessment in Counseling, for example, encourage authors to report such analyses.

As originally proposed, these methods presume a fixed effect size (e.g., multiple correlation squared, ANOVA eta squared), and explore how variations in sample size for this fixed effect might change the results of statistical tests. However, these "what if" methods can be inaccurate unless "corrected" effect sizes (e.g.,



"adjusted" squared multiple correlation, Hays' omega squared) are employed.

This paper proposed a new method by which "what if" analyses can be conducted using estimated true population effects. These new methods were illustrated in comparison with the previous methods. Also, the new methods were applied with real examples from the published literature, and the spreadsheet commands necessary to easily implement the proposed methods were provided.

EMPIRICALLY BASED CRITERIA FOR DETERMINING MEANINGFUL EFFECT SIZE

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

The concept of effect size has become very important in educational research. Some have even advocated using effect size estimates in place of tests of statistical significance. Cohen's popular book, titled *Statistical Power Analysis for the Behavioral Sciences*, recommends specific levels of effect size for "small," "medium," and "large" effects. However, even Cohen acknowledges that these values are relative to the specific content and method in a given research situation. The purpose of this study was to determine to what extent effect sizes vary by chance, how these conform to Cohen's levels, and if this variation was by chance.

Monte Carlo procedures were used to generate standardized effect sizes in a one-way ANOVA situation with 2 through 20 groups having sample sizes from 5 to 100 in steps of 5. Within each of the 180 number of group and sample size configurations, 5000 replications were done, all generated from a distribution of normal deviates. The process was tested by generating a known normal distribution and comparing it to its known characteristics.

It was found that standardized effect size variation was systematic rather than random. Number of groups and sample sizes were highly predictive of standardized effect size, but error degrees of freedom was not predictive. Equations were developed that could be used to predict standardized effect sizes that could be expected by chance, using number of groups and sample sizes as the predictor variables. The prediction equations were extremely accurate ($R^2 = 0.9990$). Thus, this research provided a better alternative for the evaluation of empirical standardized effect sizes than the somewhat arbitrary and fixed criteria often used to classify standardized effect sizes as small, medium, or large.

**10:00 a.m.-10:50 a.m. AWARD CANDIDATE PAPERS: CURRICULUM, INSTRUCTION AND
Session F#008 LEARNING (Discussion Session).....Salon B**

PRESIDER:Diana Gardiner, Louisiana State University

**NONGRADED SCHOOLS: WHY THEIR PROMISE HAS NOT BEEN
REALIZED AND SHOULD BE RECONSIDERED**

Roger A. Johnson and Betty H. Yarborough,
Old Dominion University

Nongraded schools make sense. The nongraded philosophy is in accord with available research on teaching and learning. It may be one of the most productive instructional paradigms for American school children at this time. When their relative effectiveness has been studied, nongraded schools have received a first-hand endorsement in terms of both student achievement and attitudes, particularly those of disadvantaged children.

In spite of favorable research and the apparent efficacy of nongraded schools, they have never become widely popular at any point in their history. One is intrigued by the comings and goings of the popularity of nongraded elementary schools. This study examined the inhibitors to implementation of nongraded schools in order to see what the hold-ups have been and to consider how to avoid them in the future.

The researchers proposed that the reasons identified are largely outside the educational process



itself and relate more to external factors than to the validity of the nongradedness as a way of education. In other words, the doubts about nongradedness and/or the criticism heard most often relate to a variety of factors that affect negatively the possible implementation of nongradedness and other types of innovations as well, rather than to nongradedness as a way of schooling. Examining the reasons that appear to explain the limited inroads of nongraded education may give clues as to how this promising school structure can again be resubmitted to the public as a promising direction for American schools to pursue. It is time for nongradedness, which has waxed and waned in popularity over the last several decades, to be reconsidered pedagogically, beyond both politics and public pressure, and implemented vigorously as the way of American schooling in the new millennium.

EXPLICIT TIMING AS AN INTERVENTION TO ALTER RATE OF STUDENT ARITHMETIC PERFORMANCE DURING INDEPENDENT SEAT WORK

Katrina N. Rhymer, Christopher H. Skinner, Shantwania Jackson,
Stephanie McNeill, Tawnya Smith, and Bertha Jackson,
Mississippi State University

This study examined the effects of explicit timing with varying levels of mathematics tasks. Fifty-four students in the sixth grade completed an addition task (first-grade level), a subtraction task (3.5 grade level), and a multiplication task (sixth-grade level) during a no timing condition and a timing condition. During baseline, students were told to correctly complete as many problems as possible. Students were not informed of a time deadline; however, three minutes were allowed per mathematics task (i.e., researcher covertly timed). During intervention, students were told that they had three minutes to correctly complete as many problems as possible and that they would be timed for one minute intervals during this time limit.

A 2 (timing) by 3 (assignment) within-subjects analysis of variance was conducted. Overall, students completed more digits correct per minute and solved more problems correctly per minute during the explicit timing condition than during the no-timing condition. However, the percent of completed problems that were correct (i.e., accuracy) remained constant in both the no timing condition and the timing condition.

This study indicated that explicit timing may be effective at increasing the number of problems correct per minute and the number of problems completed per minute without decreasing accuracy for mathematics skills that are better developed. Therefore, the explicit timing procedure may be utilized in the classroom with many students who vary in academic skill levels. However, it appeared that educators should only expect increases in rates of accurate responding on skills that are more developed.

AN ANALYSIS OF CONTENT DELIVERY SYSTEMS USING SPEAKING VOICE, SPEAKING WITH REPETITION VOICE, CHANTING VOICE, AND SINGING VOICE

Karen R. Foster and Mildred E. Kersh, University of Southern Mississippi

What is the difference between kindergarten students who hear factual information about the solar system delivered in a teacher's speaking voice, a teacher's speaking voice with repetition, a teacher's chanting voice, or a teacher's singing voice on the criterion variables of solar system factual knowledge, and is this difference related to the degree of musical aptitude possessed by each student?

A random sample of 360 kindergarten students participated in a study to determine if the way their classroom teacher delivered information to them affected the amount of factual information they were able to remember about the solar system as determined by a researcher designed pre- and posttest instrument. The musical aptitude of the subjects was tested using Gordon's Primary Measure of Music Audition. Some children (the control group) heard the factual information presented in the traditional method using the teacher's normal speaking voice. A second group heard the information presented by the teacher's normal speaking voice, but the certain key phrases repeated for emphasis. A third group heard the information presented in a repeated, rhymed chanting voice by their teacher. A fourth group had the information sung to them. Subjects were tested individually on all testing instruments.



A one-way analysis of variance (ANOVA) performed on the gain scores on the Solar System Factual Knowledge Tests results of the four groups indicated that the speaking with repetition group scored lower than either chanting or singing, but significantly higher than speaking alone. Although the gain scores of the singing groups and the chanting groups were higher than either of the other two groups, they were not significantly different from each other ($F=42.6$; $df=356$; $p=.000$). The results of the Pearson correlation coefficient statistical procedure showed no correlation between students' musical aptitude and their gain score (correlation=0.0547, $p=0.301$).

10:00 a.m.-10:50 a.m. MINORITY RECRUITMENT AND RETENTION
Session F#009 (Discussion Session) Salon C

PRESIDER: Abraham A. Andero, Alabama State University

**RESEARCH AND RECRUITMENT OF MALES AND MINORITIES
IN NCATE TEACHER EDUCATION PROGRAMS**

Beryle I. Baker, Georgia Perimeter College

The study was conducted to determine what efforts were being conducted to address the shortage of male and minority teachers in today's American classrooms.

The methods included the following: Personnel from 462 colleges and /or universities on the 1992 National Council of Accreditation of Teacher Education (NCATE) were surveyed regarding the status of recruitment of males and minorities as teacher education majors at their respective colleges and/or universities. All of the colleges and universities on the NCATE list were surveyed. This population was chosen because its accrediting body, NCATE, accredits only those schools, departments, and colleges of education that measure up to rigorous national standards.

The findings revealed that most collaborative recruitment efforts were informal. Programs between two-year colleges and senior level institutions were of a variety with different structures, purposes, and targeted populations. There were 55 programs that recruited minorities. There were only three programs that specifically recruited males.

The researcher had a complete summary of collaborative structures and a state-by- state summary of majors, males, minorities and types of programs with descriptions. This information was shared in the presentation.

This was a descriptive study, and the findings were limited to the 129 colleges and/or universities responding. There was no attempt to generalize the findings to all NCATE schools or to other teacher education colleges and universities who were not on the 1992 NCATE list.

It was recommended that a more complete and definitive study be made on this topic with an added focus on funding sources for programs designed to recruit male and minority teacher education majors.

**CHARACTERISTICS OF STUDENTS WHO SUCCESSFULLY COMPLETE
TWO-YEAR DEGREE PROGRAMS AT AN URBAN, HISTORICALLY
BLACK, COMPREHENSIVE COMMUNITY COLLEGE**

Lisa D. Hammons, Bishop State Community College,
and Jerry G. Mathews, Auburn University

The purpose of this study was to determine student graduation success or rates most and least likely from an urban, historically black, comprehensive community college. This study analyzed selected factors such as: (1) admissions status, (2) age, (3) ASSET Tests, (4) receipt of financial aid, (5) gender, (6) race, and (7) enrollment status on the influence of cumulative grade point averages. The problems examined included (1)



determining whether certain demographic or academic variables predict program completion; (2) determining what differences existed, if any, between students admitted with a high school diploma or a GED towards program completion; (3) determining whether certain demographic or academic variables influence cumulative grade point averages of students enrolled at an urban, historically black, comprehensive community college; and (4) determining what differences existed, if any, between program completion rates of students who were remediated in English and math and those who were not remediated in English and math.

Sociodemographic and academic data were collected on 659 first-time, native freshmen who enrolled at Bishop State Community College in the fall quarter 1995. Transfer students were not included in this study.

Chi-square tests reported no significant difference between program completion rates and students who enrolled or did not enroll in mathematics and English remediation course work. Independent *t*-tests indicated a statistically significant difference existed in mean cumulative grade point averages for the independent variables race, age of students, and program completion. The *t*-tests for independent samples indicated no statistically significant difference existed in mean cumulative grade point averages between students who received or did not receive financial aid, admission status, nor enrollment status. The multiple regression analysis revealed that variations in the students cumulative grade point averages were explained by five influence factors which included: (1) program completion, (2) race/ethnicity, (3) assessment test math, (4) age of student, and (5) admission status.

**TRANSITIONAL EXPERIENCES OF AFRICAN AMERICAN STUDENTS FROM
HISTORICALLY BLACK COLLEGES AND UNIVERSITIES TO
HISTORICALLY WHITE COLLEGES AND UNIVERSITIES**

Joe L. Ross, Rhonda C. Porter, and Ken Sanders,
Auburn University

Many African American graduate students attending Historically White Colleges and Universities (HWCU) received their undergraduates degrees from Historically Black Colleges and Universities (HBCU). Although challenges exist for all students entering graduate school, these challenges may be magnified and altogether different for students of color, especially when transitioning from HBCU's to HWCU's. This is especially true for African American students. There is a significant amount of literature describing mentoring and other socialization programs used by colleges and universities to create an environment where students of color can more successfully complete their graduate studies.

In this study, the presenters investigated the challenges of African American students making the transition from an HBCU to an HWCU by individually reflecting and engaging in conversations about their experiences in making the transition from an HBCU to a HWCU. The presenters were the participants in this investigation. The participants were graduates of HBCU's and were doctoral students in an HWCU's College of Education in the areas of Curriculum and Teaching, Counselor Education, and School Leadership and Supervision. Each participant brought academic expertise and professionalism exhibited by her/his nomination and acceptance as Holmes Scholars at their universities.

From these reflections and conversations emerged three central themes. These themes were academic, professional, and social in nature. The academic theme was described in terms of meeting the academic rigors of graduate study. The professional theme is addressed in terms of "ways of being" in the academic environment, while the social theme addressed the terms of their relationships/interactions with peers. The presenters engaged the audience in discussions about the themes addressed in this investigation and also offered suggestions to faculties and universities to assist students making this transition. The challenges that African American graduate students have faced at HWCU's are unique, and only through the sharing of experiences can these challenges be addressed.



PRESIDER: Rodney Roth, University of Alabama

THE RELATIONSHIP BETWEEN PROFESSORS' PORTFOLIO COGNITIVE KNOWLEDGE, ATTITUDES TOWARD PORTFOLIO ASSESSMENT, AND ACTUAL USE OF PORTFOLIOS

Naomi C. Coyle, Centenary College, and Laureen Mayfield,
Louisiana Tech University/Lincoln Parish (LA) Schools

The purpose of this study was to determine the relationship between college and university professors' knowledge of portfolio assessment and their attitudes toward using portfolios as an alternative to conventional assessment practices, as well as to determine the relationship between college and university professors' attitudes toward portfolio assessment and their use of portfolios in their classrooms.

Data for this study were collected by e-mailing and conventionally mailing a questionnaire concerning portfolio assessment to all Louisiana professors involved in undergraduate teacher training courses in both public and private colleges and universities (N=300).

Analysis of the 60 responses revealed no significant relationship between the professors' knowledge of portfolio assessment and their attitudes toward using portfolios as an alternative to conventional assessment. In addition, no significant relationship was found between professors' attitudes toward portfolio assessment and their use of portfolios in their classrooms.

Based upon the results, the researcher concluded that respondents to the questionnaire might have been too homogeneous to find differences because questionnaires sometimes only tap respondents who are accessible and cooperative. The low percentage of returns (20%), which raised serious questions about the nature of the nonrespondents and sampling bias, also supported the conclusion that a more heterogeneous population was needed. A reason for the low level of response could have been the forced-choice format of the questionnaire inasmuch as several of the respondents expressed irritation that a Likert scale was not employed.

Further research should examine data from structured interviews, which permit a greater probing to obtain more complete data and allow for clarification and elaboration. Such data could be used to develop a more extensive questionnaire than that utilized in the present study.

A SURVEY OF PRESERVICE TEACHERS' EVALUATION OF THE TEAM TEACHER INTERVIEW PROCESS

Angela Lewis, Elizabeth Thrower, and Terry Roberson,
University of Montevallo

The University of Montevallo instituted a team interview process in the fall 1998 semester as additional criteria for determining eligibility to the Teacher Education Program. This study examined the perceptions of preservice teachers who underwent the team interview process. Students were surveyed to determine: (1) their understanding of the interview process, (2) their level of comfort during the interview, and (3) their level of satisfaction with the process.

The team interview process is a prerequisite for entrance into the Teacher Education Program at the University of Montevallo. Faculty and staff are divided into "interviewing teams." Students meeting a specific criteria are allowed to proceed with the interview. Evaluation of admission to the interview is monitored by the Office of Teacher Education Services.

Of the 63 students scheduled for the interview, nine canceled, one did not show for the appointment, and one student changed her major. Fifty-two students were interviewed; two failed, and 50 passed. Of the 52 students participating in the interview, 48 participated in the survey.

Qualitative and quantitative data were collected from the student survey. Students completed the survey immediately after the team interview. A Likert-type scale and open-ended questions were used on the



survey.

SERVICE QUALITY IN HIGHER EDUCATION: EXPECTATIONS VERSUS EXPERIENCES OF DOCTORAL STUDENTS

James H. Lampley, East Tennessee State University

This presentation reported a study conducted to test a gap analysis model designed to measure doctoral students' perceptions of service quality in higher education at the seven doctoral granting, public universities in Tennessee: East Tennessee State University, Tennessee State University, Middle Tennessee State University; Tennessee Technological University, University of Memphis, The University of Tennessee - Knoxville, and University of Tennessee - Memphis. The study employed a 26-item survey instrument, which required doctoral students to compare their experiences with their expectations, thereby giving a measure of gaps in educational service quality at their institution. The research design included five research questions with five null hypotheses testing for relationships between students' expectations and experiences, between overall satisfaction ratings and service gaps, and between overall satisfaction and certain demographic variables.

Analysis of the data revealed a gap between students' expectations and their actual experiences with services delivered at their university. A comparison of mean expectation scores to mean experience scores revealed a significant difference between the two scores for 25 of the 26 items on the scale. Also, a significant relationship existed between the demographic variables (age, gender, ethnicity, degree area, and class load) and both the composite gap scores for each dimension and the overall satisfaction scores. In addition, a significant relationship was found between overall satisfaction and both the summed gap score for each dimension and the composite gap score for the scale.

10:00 a.m.-10:50 a.m. DISCIPLINE
Session F#011 (Discussion Session).....Salon E

PRESIDER:Gail Weems, The University of Memphis

STUDENT TEACHERS' BELIEFS ON DISCIPLINE: BEFORE AND AFTER STUDENT TEACHING

Gahan Bailey, University of South Alabama

This study assessed student teachers' beliefs on classroom discipline before and after the student teaching experience. The purpose was to investigate to what extent the participants believed in the psychological theories of Interventionism, Non-Interventionism, and Interactionalism. Furthermore, it was to determine if the student teachers' beliefs would shift after their field experience.

Participants in this study consisted of 42 elementary education majors and 25 secondary education majors (total N = 67) who were registered to student teach in the spring semester of 1999. The Beliefs on Discipline Inventory developed by Tamashiro and Glickman was administered to the participants during their pre-student teaching meeting and then again during their post-student teaching meeting.

The data analyses provided overall evidence that student teachers believed and acted according to all three approaches of discipline, yet usually one predominated in their beliefs and actions. Discussions from the findings addressed the differences between elementary and secondary student teacher discipline beliefs, shifts in the participants' beliefs, and various discipline approaches and models for teachers to deal with misbehavior.

AN EXPLORATORY CASE STUDY OF THE FORMAL AND INFORMAL DISCIPLINE POLICIES USED IN SELECTED ELEMENTARY SCHOOL CLASSROOMS



Jennifer R. Taylor-Cox, University of Maryland

The broad aim of this study was to examine classroom discipline policy through the use of a micropolitical framework. While this study explored classroom discipline policy utilizing the micropolitical perspective, it was classroom discipline that drove this research. The template that framed and guided the exploration of discipline policy through the scrutiny of specific phases of policy development included enactment, conveyance, realization, and evaluation as the particular phases of policy development.

This exploratory case study of the formal and informal discipline policies used in selected elementary school classrooms was a qualitative research endeavor that was empirically orientated. The empirical nature of this research, which included structure, validation, and attention to “traditional rules of scientific inquiry” (Yin, 1991, p. 12), was chosen to compensate for the surplus of speculative “data” in the popular classroom discipline literature. The data sources included indepth guided interviews, and semi-structured classroom observations, and were supplemented by informal interviews and pertinent printed material. The methods of data analysis involved categorizing, distilling themes, and establishing chains of evidence.

Using four phases of the policy process (enactment, conveyance, realization, and evaluation), I investigated how teachers and students vied for power, influence, control, authority; classroom conflicts unfolded; acts of negotiation affected the overall classroom discipline; protection in the classroom related to discipline; and how the classroom context affected, hindered, and constructed social order in the classroom. The views, behaviors, and verbal exchanges of the teachers and students concerning discipline were paramount to the analyses and interpretations of the discipline policies used in the selected elementary school classrooms.

Each facet of the research process was directed toward reaching a greater understanding of the formal and informal discipline policies used in selected elementary school classrooms. Conclusions and implications for researchers and practitioners included the necessity of classroom discipline policy perimeters and further scholarly attention.

FUTURE TEACHERS' PERCEPTIONS OF DISCIPLINE

Beatrice K. Volkman, Mississippi University for Women,
and Rebecca McMahon, University of South Alabama

This qualitative inquiry employed the use of questionnaires and follow-up interviews to obtain insight into the views of future teachers regarding guidance, discipline, and punishment, as well as the influences that contributed to the formation of these views. The questionnaire consisted of five demographic items and five open-ended questions. Subjects were undergraduate students (n=90) majoring in elementary education at two public universities located in the southern United States. All subjects had completed the prerequisites required for student teaching.

Following individual analysis of questionnaires by two researchers, tentative findings were collaboratively formulated. These findings served as the basis for developing three semi-structured interview questions. Follow-up interviews were conducted with 20 respondents.

When asked to distinguish the terms guidance, discipline, and punishment, 79 subjects reported that these terms were not synonymous. Eighty-two subjects positively viewed spanking as a discipline technique, and thirty-one advocated the use of time-out. When asked to prioritize the influences that impacted the development of their personal philosophy of classroom management, the majority (66%) of subjects ranked the way they were reared at home as the most compelling factor. Similarly, 53 (59%) subjects reported that information gained in university courses was the least significant factor. Thirty-three (37%) subjects felt that instruction in classroom management techniques was either completely omitted or only minimally addressed in their university program.

Results indicated that most preservice teachers could clearly define guidance in positive terms of modeling and leading. Yet, conspicuously absent from their definition was any reference to the task of the classroom teacher to foster the development of self-control and socialization skills or to create the context for positive discipline. Additionally, preservice teachers have relied more heavily on information they have gleaned through personal experience than through instruction received in their teacher education program when



considering the issue of classroom management.

10:00 a.m.-10:50 a.m. EDUCATIONAL REFORM
Session F#012 (Discussion Session).....Salon F

PRESIDER:Lynda Frederick, University of South Alabama

STAR REANALYSIS SHOWS IMPORTANCE OF MULTIPLE YEARS OF SMALL-CLASS INVOLVEMENT

Jeremy D. Finn, State University of New York at Buffalo,
and C. M. Achilles, Eastern Michigan University

Tennessee's Student Teacher Achievement Ratio (STAR) study was designed to answer the question: Do small classes improve student achievement . . . ? The answer was "yes." In the political move to use STAR results, the questions have changed to such topics as (paraphrased): How much do small classes improve . . . ? Are improvements worth the costs? etc. One recommended policy option to conserve costs is to target small classes to at-risk students because they seem to benefit more from small classes than do other students.

Although the original STAR design and analyses amply handled the original questions, answers to the new questions require (1) a clear understanding of the STAR study, (2) new analysis processes, and (3) a thoughtful consideration of original and new findings relative to policy, practice, and new political arenas.

The present study (1) summarized the STAR experiment and (2) brought together original and later analyses of STAR data for selected grade levels. The result is an expanded understanding of the "class-size effect" first experimentally established in STAR (1985-1990), including revised effect sizes (ES) and consideration of new ideas about class size as an one-time "inoculation" or a longer-term "diet."

Examples from the reanalyses included slightly larger ESs for the benefits of small classes, improved and expanding levels of continuing student gains through the grades after adjusting for Item Response Theory (IRT) factors embedded in tests, clearer understandings of the importance of varying years of small-class treatments for young children, and more. Researchers attended also to the equity issue of differential class-size effects for groups of students.

These and other expanded findings from the detailed STAR database of over 11,000 students have resulted from continuing analyses supported by a Spencer Foundation grant, A Study of Class Size and At-Risk Students.

WHEN CHANGES DON'T MAKE CHANGES: CHALLENGES IN IMPLEMENTING REFORM IDEALS IN ELEMENTARY MATHEMATICS CLASSROOMS

JeongSuk Pang, Louisiana State University

Educational reformers are advocating changing from teacher-centered towards student-centered practices. This exploratory case study examined unevenly successful elementary mathematics teaching practices (1) to see how teachers understood and characterized reform relative to their own experiences and priorities, and (2) to articulate new issues and problems in implementing current mathematics education reform ideals.

Seventeen second-grade classrooms aspiring toward student-centered instructional methods in mathematics were observed and analyzed by the extent to which students' ideas were solicited and became the center of mathematical discussion. Two classes were finally selected because of their unequal success. Fifteen lessons were video-taped from the classrooms using two or three camcorders; one for the teacher, another for the students, and/or the third for the whole class. Additionally, audio-tapes were made of small group discussion. Additional resources were collected, such as students' papers and projects. A total of eight hours of interview was



conducted with each teacher mainly focusing on how she constructed her own teaching methods.

The video-and audio-taped lessons were transcribed and analyzed using the grounded theory approach based on constant comparative methods. The classrooms were analyzed individually and comparatively. Each classroom was analyzed with regard to general social norms and sociomathematical norms that are specific to students' mathematical activity. Next, the two classrooms were compared and contrasted in terms of the two norms. Then, the underlying factors that significantly influenced the teacher's instructional goals were identified on the basis of the interviews.

Preliminary results showed similar classroom social practices but dramatically different mathematical discourse. This implied that changing only the superficial classroom social norms did not lead to reform. The difficulties and successes of the two teachers afforded the possibility of exploring the challenges of reform for teachers and other personnel who were attempting to move teaching practices towards the student-centered ideals.

LIFESKILLS EDUCATION: TWO PROGRAMS THAT WORK

Nancy L. Tarsi, The University of Tennessee, Knoxville, and
Teresa A. Garland, North Carolina State University

This presentation concerned two different educational programs. The focus of this discussion was (1) program evaluation (2) implications for educational practice.

One program was studied over a period of two years. This public school serves preschool ages through grade five. The school uses the model of Integrated Thematic Instruction (ITI) popularized by Susan Kovalik. The curriculum is designed against a backdrop of lifeskill guidelines that frame all learning: trustworthiness, active listening, no put downs, personal best, and truthfulness. Observational data were collected over this period, culminating with 10 phenomenological interviews with teachers, teacher assistants, and other school personnel. The opening question posed was, "Tell me a story that represents some aspect of your experience [teaching] here at (school)." Results revealed strong personal investment in the ITI operating system in the school, with feelings of enthusiasm and hopefulness among the personnel. The children in this school scored in the highest percentile of the Tennessee Comprehensive Assessment Program (TCAP) for the past two years. The implications pointed to a conceptual difference in how we think about teaching and learning.

The second program discussed is an after school and summer program offered through the University Extension service. Social, educational, and recreational activities for children were offered. Pre- and post-interviews were held with participants over a two-year period that asked questions pertaining to their experience of the activities and ensuing functioning levels. The most surprising result of the interviews was that children identified "getting along with [their] famil[ies]" as their biggest problem. Some pre-involvement and post-involvement academic levels were collected for participating children. The results had implications for the educator's role in facilitating emotional adjustment with students.

**11:00 a.m.-11:50 a.m. AWARD CANDIDATE PAPERS: EDUCATIONAL REFORM AND
Session F#013 MINORITY STUDENTS (Discussion Session)..... Salon A**

PRESIDER:Neil Amos, Mississippi State University

RETHINKING LEADERSHIP ETHICS: TOWARD A NEW WORLDVIEW

Carol A. Mullen, Auburn University

This study investigated an innovative research program in a school-university setting in Florida. The Partnership Support Group (PSG) brought together a heterogeneous group of 17 teachers, administrators, professors, and students. The research problem studied was: How can co-mentoring be used as a guided form of research collaboration? Co-mentoring was used as a viable alternative to traditional mentoring wherein



institutional power shapes contexts. The PSG pursued opportunities for conducting research as equal partners who proactively learn from one another.

Participants were guided to investigate their own study. The co-edited book, *New Directions for Mentoring: Creating a Culture of Synergy*, (in press) resulted. As the group leader/senior editor, the researcher addressed: (1) why the participant role needs to be rethought to promote a new leadership ethics in research, (2) how support group structures can be used to engage participants more expansively, and (3) what kinds of mentoring projects were undertaken by the PSG participants. The researcher shared how the co-mentoring writing community was developed and assessed.

Researchers are being challenged to rethink leadership ethics so that a more equitable treatment of "subject" can be produced. Researchers' work will need to incorporate: considerations of what participants can gain from contributing to research, how participants' voices are being represented in the literature, and who is credited for authorship.

The researcher shared highlights of the project that proved beneficial to the participants and to the school. Project development included: (1) framework design involving planning, group process, and assessment, (2) strategies for developing research teams (e.g., project updates), (3) documentation of group process using various methods (e.g., transcription), (4) sharing research logs to enact a forum for constructive input, (5) editorial guidance on material prepared by participants, (6) involvement of leaders outside the formal support group, and (7) project assessment by participants and disseminating results.

ENHANCING AND EVALUATING SCIENTIFIC AND MATHEMATICAL SKILLS OF AFRICAN AMERICAN STUDENTS

Jennifer M. Good, Glennelle Halpin, and Gerald Halpin,
Auburn University

Examined was growth in mathematical and scientific areas of African American college students during their first quarter of instruction. Because these students were enrolled in quantitatively-based majors, a program to enhance these particular skills was developed, which included an interactive learning laboratory with computer software in mathematics, a critical-thinking workshop designed to hone problem-solving skills in science and math, and a series of weekly tutorials. In order to serve these students most effectively, methods of instruction and evaluation were integrated throughout the program.

Data were gathered on 44 African American students who were involved in the various program components. These students visited the lab three times per week, attended workshops once a week, and engaged in tutorials with upperclass mentors once a week. Student files completed in the interactive learning laboratory and student journals completed in the critical-thinking workshops were used as a medium for instruction and a method of evaluation to capture the ongoing growth of the students. The students were pre- and posttested on three standardized subtests (critical thinking, mathematics, and science reasoning) of the Collegiate Assessment of Academic Proficiency. The first-quarter grade point averages of the students were also compared to grades of comparable samples of freshman African American students who had enrolled in quantitatively-based programs of study for five years prior to this study.

An analysis of the data revealed that student achievement in mathematical and scientific areas developed during the quarter of involvement in the academic support program. Specifically, the first-quarter grade point averages of students involved in the program exceeded those of their peers in years prior to the program's existence. In addition, standardized mathematics and science reasoning scores increased pre- to postintervention. Comments collected in journals and files demonstrated use of problem-solving skills adopted and employed by students in real problem-solving contexts.

HERBERT M. HANDLEY AWARD FOR OUTSTANDING THESIS/DISSERTATION PROPOSAL

AFRICAN AMERICAN IDENTITY DEVELOPMENT: TOWARD



THE DEVELOPMENT OF A CONTEMPORARY MODEL

Janeula M. Burt, Auburn University

The goal of this study was to provide the rationale and justification for a new conceptual framework that would enable and facilitate a better understanding of the factors that contribute to the development of a stable and healthy ethnic identity model among African Americans. Factors explored included five subscale measures: Family Socialization, Racial Consciousness, Cultural Connectedness, Collective Thought, and Self-Concept, as well as a summed score for the overall African American Identity Scale.

The statistical procedures utilized in this study were descriptive analysis, tests of reliability, multiple regression, *t* tests for independent samples, and discriminant analysis. The major findings of this study are as follows: (1) the African American Identity Scale (AAIS) was found to be a reliable measure for both the 117-item and 70-item scales and their subscales; (2) although there was a statistically significant correlation between the African American Identity Scale and the Racial Identity Attitude Scale (RIAS), interpretation of the multivariate analysis is subject to scrutiny because of the low reliability coefficients of the RIAS scores; (3) the mean AAIS score of African American students attending an historically black institution differed significantly from that of students attending a predominantly white public institution (the difference in means was in the expected direction, the AAIS mean score for students attending Howard University was higher than the mean AAIS scores for students attending Auburn University; and (4) according to a discriminant analysis, whether students attended an historically black or a predominantly white institution could be correctly classified with a statistically significantly greater probability of approximately 76%. Thus, it may be concluded that the AAIS, a new measure of African American identity, is an instrument possessing psychometric reliability and predictive utility.

11:00 a.m.-11:50 a.m. READING AND AT-RISK STUDENTS
Session F#014 (Discussion Session)Salon B

PRESIDER: Jimmy D. Lindsey, Southern University--Baton Rouge

THE VISION SCREENING OF TITLE I READING STUDENTS

Roger A. Johnson, Old Dominion University, and Rose J. Blair,
St. Pius X School (VA)

Vast numbers of American students are academically at risk. In recent years there has been much concern with state and national learning standards, block scheduling, cooperative learning, inclusion, and Title I reading programs. No educational innovation can be effective if a student lacks adequate visual skills. Few schools utilize a comprehensive vision screening program. Important visual skills needed for learning are not being detected. One crucial visual skill, tracking, is not assessed under the current school standards for visual screening. This visual skill is absolutely essential for reading and writing.

The New York State Optometric Association Vision Screening Battery and the Developmental Eye Movement Test were administered to 186 students in grades five through eight in order to rule out vision deficiencies as contributing to academic difficulties. The vision tests include eight separate measures of visual ability: tracking, visual acuity-near, visual acuity- far, convergence, hyperopia, stereopsis, fusion, and color vision. One half of the students were enrolled in a Title I program.

According to a chi-square statistical analysis, significantly more Title I students failed one or more of the visual screening measures than did the control students. The Title I students had a particularly difficult time with tracking, the ability to move the eyes across a sheet of paper. If one lacks the ability to move one's eyes across a line of print, one's ability to read may be significantly hindered. Many Title I students may not be aware that they have visual problems. Instead, they may simply believe that they have reading or learning problems. This misconceived self-perception, along with an undetected visual impairment, is likely to frustrate many of these students. Unless Title I students with visual impairments are properly diagnosed and treated many



are unlikely to complete high school.

**THE EFFECT OF DIRECT INSTRUCTION IN SIGHT WORD VOCABULARY
ON READING ACHIEVEMENT OF AT-RISK STUDENTS**

Julie A. Holmes and Lauren Goers Mayfield,
Louisiana Tech University/
Lincoln (LA) Parish Schools

The problem investigated in this study was to compare the achievement gains in reading vocabulary and comprehension skills in third-grade students who received whole group instruction and those who received whole group instruction with daily sight word vocabulary assignments.

The subjects were 26 third-grade students from a north Louisiana public school. The control group consisted of 15 students from a middle to low-ability class. The experimental group was 11 at-risk students, three of whom were special education inclusion students. Experimental group students were given nightly homework assignments to read lists of unmastered sight words taken from the basal reader. Data were collected for a six-week period from four story tests and a unit test accompanying the basal series. The story tests consisted of 10 multiple choice questions concerning story vocabulary, comprehension, and skills taught with the story. The unit test consisted of multiple choice questions encompassing the main skills taught throughout the six-week period: vocabulary, paraphrasing, fact and opinion, graphic aids, and reference sources. Data were analyzed by using a Mann Whitney U. Results showed a significant difference ($p < .05$) in achievement level in favor of the experimental group.

The results of the study suggested that at-risk students attained significant gains when given daily assignments to read sight word lists. The researchers also concluded that at-risk students required individualized instruction, development of sight word vocabularies, and assessment of prior knowledge in certain situations in order to succeed in reading.

**11:00 a.m.-11:50 a.m. LEADERSHIP
Session F#015 (Discussion Session)..... Salon C**

PRESIDER:Russell West, East Tennessee State University

UNDERSTANDING TEACHER RELATIONSHIPS IN REFORMING SCHOOLS

Cathleen S. Hightower and Caroline B. Cody, University of New Orleans

The study examined three elementary school faculties involved in school reform efforts and the relationships among teachers. In schools focused on cultural change, the study sought further explanation of the relationship among principal perceptions expressed in interviews, teacher perceptions expressed in a survey, and a sociogram and whether there was congruence among the three kinds of data. The study examined (1) principal interpretations of reform efforts and their perceptions of teacher relationships within their schools, (2) teacher survey on teacher relationships within schools, and (3) sociograms of three faculties determining closest teacher-to-teacher relationships.

This study continued the work of a recent UNO dissertation that examined the way that boundaries between subgroups seemed to fade as teachers had repeated opportunities to talk together in new combinations during reform efforts. "Bridge" people played an important role in the process of reducing the boundaries between "we-group" participants in school reform talking to "they-group" resisters to school reform. This study involved three principals and three faculties (approximate total, 100). The researchers interviewed the principals following a protocol designed to give principals the opportunity to relate specific incidents and insights about their schools' recent reform efforts as well as teacher relationships in their school. The faculties of all three schools responded to a survey designed to examine teacher relationships from the perspective of Weiss' four I's



(interest, information, institution, ideology) to determine if this model continued to expand the understanding of teachers' relationships in schools involved in reculturing efforts. The researcher analyzed the data produced from the sociograms and triangulated it with the information from the principal interviews and the factor analysis of the teacher surveys.

Each piece of writing was analyzed holistically and analytically. A matrix was developed to determine thematic patterns. Factor analysis was done to identify factors contributing to change and cohesion, as well as Weiss' four I's. Tentative conclusions were drawn, and attempts to verify conclusions included all three methodologies.

IMPACTS OF SHARED DECISION MAKING

Dorothy T. Riley, Trace Crossings (AL) School

This qualitative study examined the degree to which a school principal, faculty, and community achieved the goal of shared decision making. The purpose of this study was to provide them with the data needed to help formulate a plan for school improvement. Through interviews of faculty, observations of meetings, and review of the school's documentation of committee structures, the researcher determined strengths and weaknesses in the decision-making process. The participants articulated needs for improvement based on their experiences, and these were supplemented using current literature on educational leadership.

A critical case methodology was used. Several basic research questions served to direct data collection efforts. First, shared decision making was defined by the participants. Next, both formal and informal structures in place to gather teacher input were examined. The kinds of decisions that teachers want to make and those they want administrators to make were ascertained. Changes in the decision making process over time were a focus of inquiry. The study looked at how well the current decision making process is working. Finally, administration and staff responded about how decision making processes could be improved.

The researcher came to three basic conclusions. The way shared decision making was defined by all the stake holders impacts the perception of how well processes were working. There was a need to understand the levels of decision making, as well as which decisions would be shared and which ones would not. Teachers did not want to spend time meeting if they felt that their input is not going to be used.

FACULTY PARTICIPATION IN GOVERNANCE: A THREE-YEAR LONGITUDINAL STUDY

Vincent R. McGrath, Jack G. Blendinger, and Linda Cornelious, Mississippi State University

This qualitative case study reported experiences in shared governance at a college of education over a three-year period (1996-99). The initial experiences in shared governance were first presented at the 1997 annual meeting of the Mid-South Educational Research Association (MSERA). Because interest in the topic by participants attending the session was high, we continued studying the process of shared governance from within the organization and reported our findings at the 1998 annual meeting. This paper chronicled the third year of experience and constituted the only longitudinal study on the topic of shared governance in colleges of education reported in the literature.

Establishing shared governance has not been an easy task. Early exuberance has evolved into what may best be described as apathy because of benign indifference by both faculty members and administrators. High turnover of faculty has also complicated matters and retarded progress. Nevertheless, the movement steadily continues and shows promise of gaining additional momentum in the fourth year of its existence.

In addition to bylaws, shared governance, as reported in this case study, has been guided by the faculty council, a representative body comprised of professors and research scientists selected by academic departments and research units. The council emerged as the primary mechanism to implement shared governance from what was previously a rarely-activated advisory committee. Capitalizing on the need for shared responsibility in governance, council members moved rapidly to make the council a viable means for participating in the



decision-making process and facilitating communication between faculty and the administration.

Data collected over a three-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 action research project chronicling governance experiences at colleges of education using the Internet as a communication tool.

11:00 a.m.-11:50 a.m. LEARNING STYLES AND STUDENT MOTIVATION
Session F#016 (Discussion Session) Salon D

PRESIDER:Gahan Bailey, University of South Alabama

THE CULTURE/COGNITIVE STYLE CONNECTION: A CROSS-CULTURAL ANALYSIS

Jacqueline F. Nuby and Elizabeth E. Thrower, University of Montevallo

The purpose of the study was to investigate cross-cultural differences and similarities in the cognitive styles of Caucasian, African American, Mexican American, Native American, Russian, and Spanish secondary students in grades 9-12.

The researcher administered the Myers-Briggs Type Indicator to a sample of approximately 100 students representing each cultural group. The results of the Myers-Briggs Type Indicator indicates a learner's cognitive style or approach to learning. In order to classify differences and similarities in each cultural group, SRTT tables were created. Chi-square calculations were computed, with the criterion for significance at $p < .05$.

A comparison of the cognitive styles of each cultural group revealed that, although variations existed within each cultural group, significant differences existed between groups in the approach to learning. The results were consistent with past research relating to cultural differences and its influence on cognitive style.

Based on the results of the study, the researcher discussed strategies to address differences in approach to learning based on culture.

Because knowledge of cognitive style and culture is of vital importance to teachers as we become an increasingly diverse society, a discussion followed describing various teaching strategies geared to differences in cognitive style.

EVALUATION OF AN AMERICORPS MATHEMATICS TUTORING PROGRAM

Jim R. Flaitz, The University of Southwestern Louisiana

In 1995, The University of Southwestern Louisiana was funded to establish an Americorps service learning program in the Lafayette community. In 1999, one of the components of that project was a mathematics tutoring program targeting at-risk students.

A total of 28 students was tutored, drawn from grades two through five. Program impact on academic performance was examined using two sources: a computer-based test of mathematics achievement, and the teacher-assigned six-week marks for the five marking periods of the program. The same data were gathered for the remaining students in each class who were not tutored.

T-tests revealed that gains in mathematics achievement scores for the tutored students were roughly comparable to those exhibited by the non-tutored students at most grade levels. Analysis of variance of six-weeks' marks revealed no statistically significant differences between tutored and non-tutored students at the beginning or the end of the tutoring program. There was a statistically significant interaction between tutor status and grade level based on gains in six-weeks' marks. End of semester averages were also compared, and again the tutored students were not found to be statistically significantly different from their non-tutored classmates.

The evidence gathered and the interpretation of findings must be viewed cautiously, because of limitations in the data collection design. The tentative impression generated was one of some hopefulness, as the



tutored students appeared to have held their own ground, tended to show gains in academic performance similar to, or surpassing those of their non-tutored classmates, and in most instances narrowed the gap between themselves and their non-tutored classmates.

**THE RELATIONSHIP BETWEEN PEER ORIENTATION AND ACHIEVEMENT
IN COOPERATIVE LEARNING BASED RESEARCH METHODOLOGY COURSES**

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

Research suggests that learning styles play an important role in research methodology classes. In particular, evidence exists that graduate students who tend to prefer to learn in cooperative learning groups tend to obtain lower levels of performance in research methodology courses than do their counterparts who have more individualistic orientations. Indeed, peer orientation has been found to explain as much as 27.4% of the variance in achievement among graduate students. Thus, the purpose of the present study was to determine whether the relationship between peer orientation and achievement remained in research methodology courses in which cooperative learning groups were formed to undertake the major course requirements. Indeed, scant research in the area of cooperative learning has been undertaken at the graduate level.

Participants were 159 students enrolled in seven sections of a graduate-level research methodology course at a southern university over a two-semester period. These students completed the Productivity Environmental Preference Survey. Scores from the peer-orientation subscale were correlated with the final examination. This assessment, which was administered individually in all classes, measured conceptual knowledge, including students' knowledge of research concepts, methodologies, and applications.

Findings revealed a small but statistically significant relationship between peer orientation and achievement ($r = -.16, p < .05$). That is, peer orientation explained 2.6% of the variance. Although this relationship was statistically lower ($p < .05$) than the corresponding relationship reported above, the fact that the relationship may still be non-trivial warrants further research. Implications of these findings were discussed.

11:00 a.m.-11:50 a.m. SCIENCE EDUCATION
Session F#017 (Discussion Session).....Salon E

PRESIDER:William Spencer, Auburn University

**THE VIEWS AND BELIEFS OF A MIDDLE SCHOOL SCIENCE TEACHER REGARDING
INQUIRY-BASED LEARNING WHEN USING SCIENTIFIC
PROBEWARE TECHNOLOGY**

David R. Wetzel, George Mason University

Both the National Science Education Standards (NSES) and the National Education Technology Standards (NETS) have emphasized the use of technology during scientific investigations of natural phenomena. This research examined how a middle school science teacher viewed the use of one type of technology, scientific probeware, and why it supports inquiry-based learning in middle school science teaching. An embedded single-case study research approach involving the middle school science teacher was conducted regarding the following questions: (1) What is the view of a middle school science teacher regarding the use of scientific probeware to support inquiry-based learning? and (2) In the view of the middle school science teacher, how does the use of scientific probeware affect student understanding of scientific concepts?

This case study examined the personal views and beliefs of the teacher regarding the use of scientific probeware in middle school science. Construct validity was accomplished using triangulation of non-participant observations, open-ended interviews, field notes, and literature related to common influences when using technology to teach science. Data were analyzed for pattern matching related to the research questions



through the use of analytical or descriptive categories for explanation to maintain internal validity. A strict research protocol was maintained for external validity.

The findings of the study were that the use of scientific probeware technology does support both NSES and NETS goals for teaching science. Inquiry-based learning was evident because of a shift in the teacher's role from information giver to facilitator and becoming more student-centered, when using scientific probeware. In the view of the science teacher, students' performance and understanding of science concepts improved, as they became personally involved in their own learning. Further findings were that the use of scientific probeware appeared to assist special needs students who would remain more focused on the scientific investigations when using scientific probeware technology.

DOES RESEARCH MATTER TO THE CLASSROOM TEACHER?

Evelyn M. White and Todd Gary, Tennessee State University

Does research matter to the classroom teacher? This fundamental question should concern those of us involved in educational research. This concern led to the design and analysis of a graduate course at Tennessee State University that challenged classroom teachers to make a meaningful connection between the research literature and effective classroom teaching strategies.

This course, Advanced Science in the Elementary School (EDCI 683), is a team-taught, doctoral-level course designed for teachers trained in a NSF-funded K-6 hands-on science reform project to develop higher quality science teaching and student learning. This goal is achieved by engaging teachers in leadership roles in this project and involving them in actively learning and applying current developments in science education to this project and in their classroom.

During the fall semester 1998 twelve teachers enrolled in this course located and critiqued research articles that supported effective teaching strategies such as cooperative groups, inquiry, and the learning cycle. Then these teachers wrote papers that described how findings from these articles connected with this project and their classroom teaching. Each teacher presented her findings to the class. Also in this course, inquiry-based lesson plans were prepared, science curricular materials were evaluated, and science activities were synthesized to align with state and national guidelines. One semester after taking the course, these teachers were contacted and surveyed to determine how they applied the research findings in their classrooms and in leadership roles in the project. The teachers' work, videotapes of the presentations, and follow-up responses were analyzed to determine the extent to which they made the connection between theory and practice.

The results suggested that once teachers saw a connection between research and their classroom, the research became of value to them. School systems should provide professional development opportunities that encourage teachers to explore the value of research to their profession.

BRIDGING THE STUDENT ACHIEVEMENT GAP IN SCIENCE

Marie Miller-Whitehead, The Miller Group (AL)

The purpose of the study was to examine the relationship between school system financial and demographic data and student achievement on the science subsection of the 1998 statewide standardized test to determine if systems that served large numbers of low income students had been as successful as more affluent systems in improving student achievement.

The null hypothesis was "There is no difference in student science achievement by system per pupil expenditure, percentage of students on free and reduced lunch, and county per capita income." The Tennessee test score data has provided valuable empirical evidence for a number of longitudinal studies (Achilles, 1996; Achilles, Zaharias, & Nye, 1995; Finn & Achilles, 1990; Nye, 1992; Nye, 1993; Sanders & Rivers, 1996); the present study sought to provide additional empirical data for systems serving at-risk student populations.

The inquiry used categories from the system level data set from the Tennessee state report card consisting of the Tennessee science scale scores for grades three through eight for 1998, per pupil expenditure, per



capita income, and percentage of students on free and reduced lunch. System level data, including mean, minimum and maximum scale scores by grade level, provided on the system report cards by the Tennessee Department of Finance and Accountability were used in the analysis.

A previous regression analysis conducted with the same variables on the 1996 data had yielded an R2 of .91 and an adjusted R2 of .86. Of the variables in the analysis, percent free and reduced lunch was by far the most powerful predictor for school system science achievement in 1996 ($r = -.94, p < .001$) with per capita income of the county in which the school system was located having a positive correlation ($r = .63, p < .05$) to systemwide student performance and per pupil expenditure ($r = .46, p < .1$) also having a positive correlation to achievement.

11:00 a.m.-11:50 a.m. PERFORMANCE ASSESSMENT
Session F#018 (Symposium).....Salon F

ORGANIZER: Judith A. Burry-Stock, The University of Alabama

SYMPOSIUM ON CLASSROOM ASSESSMENT FOR THE NEXT MILLENNIUM

Overview

The topic of classroom assessment has been the focus of much attention. It has gone from being a subtopic of measurement to a topic of its own. This symposium is a set of papers on classroom assessment.

Making a Difference in Teachers' Perceived Skill Competency of Classroom Assessment

Judith A. Burry-Stock and Gyu-Pan Cho, The University of Alabama,
and Monika Schaffner, Bowling Green State University

A statewide study was done using students who had taken the required undergraduate Assessment of Classroom Learning course from The University of Alabama, and students who had graduated from other programs. The assessment course at Alabama was designed in 1990 based upon the assessment standards AFT, NEA and NCME. The purpose of the study was to see if teaching a course over a nine year period, made a difference in the way teachers perceived their assessment ability.

All 250 participants were teaching and took the Assessment Practice Inventory (Zhang and Burry-Stock, 1994). A multivariate analysis of variance indicated statistical significance in total API score and three subscales of the API. From the results of these studies it appears that a well organized assessment class, designed using the national assessment standards, does in fact produce statistically significant differences in the assessment practices of teachers.

**A Regression Analysis of the Assessment Practice Inventory
and Demographic and Institutional Data**

Judith A. Burry-Stock and Gyu-Pan Cho, The University of Alabama,
and Monika Schaffner, Bowling Green State University

A multiple regression analysis was done from Study 1 on the API as the dependent variable with demographic variable as predictors. A backward multiple regression analysis was run using eight criterion variables: education level, grade level, primary subject, ethnicity academic institution, satisfaction with teacher preparation program, assessment preparation, and gender. The full model $R^2 = .204$ and the R value is .452. The regression coefficients that are statistically significant in the full model at $\alpha = .05$ are: undergraduate academic institution and satisfaction with their assessment preparation program.



Assessment of Classroom Learning: A Course Aligned with the Assessment Standards
Gwen Hamilton, Mary Nell McNeese, and Judith A. Burry-Stock, The University of Alabama,
and Monika Schaffner, Bowling Green State University

The Alabama State Department of Education requires specific assessment objectives to be taught in teacher preparation programs. The course used in Study 1 begins with a unit of study on five achievement targets (Stiggins, 1991). Students assemble a "Unit Table of Specification."

Students do their first three projects on writing behavioral objectives, paper-pencil items, and performance measures to fit specific cells on the "Unit Table of Specifications." The remainder of the semester incorporates statistics, basic measurement theory on standard scores for interpreting standardized test score information for reading student achievement profiles at individual and classroom aggregates, and grading practices and ethical dilemmas.

Perceptions of Assessment Practices of Teachers by Students (PATS)

Monika Schaffner, Bowling Green State University, and Judith A. Burry-Stock,
Tracy Boney, Gyu-Pan Cho, and Gwen Hamilton, The University of Alabama

We know that when students are involved in assessment through student-led conferences, they will take more responsibility toward their own goals and learning (Gonderman, Hatcher, and Ikan, 1998). However, no formal research of students' perception of their teachers' assessment practices could be found so we wrote one.

A sample of teachers who participated in the 1998 statewide study (Study 1) were mailed the Perception of Assessment Practices of Teachers by Students (PATS) inventory (Schaffner, Burry-Stock, Cho, and Boney, 1999). Approximately 300 students participated in this study. The internal consistency reliability of the 4-12th grade instrument is .93 and for the K-3 instrument .73. The instruments measure students' self-reported experiences with classroom grades, such as fairness issues, curricular issues, and relevance issues.