Research by External Agencies or Individuals in AISD.

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**ABSTRACT**
Abstracts of 34 research projects conducted in the Austin (Texas) Independent School District (AISD) are presented. A roster summarizing the projects by external researchers is also included. The roster shows, for each project, the project number, title, director, sponsor, schools where research was conducted, and whether a full report is on file. This is the eighth year the AISD has published abstracts of its research. The district's Department of Management Information screens all proposals presented to the AISD to: (1) include high quality research that meets the needs and interests of the district; (2) exclude research that doesn't meet criteria established by the district; and (3) protect the time and energies of AISD staff and students. From June 15, 1985 to June 15, 1986, 14 of 22 proposals were approved. The bulk of this document consists of the abstracts, which include project descriptions, descriptions of results, implications of results, and implications for AISD. (JGL)
External Research in AISD: Searching for Excellence

Drawing by Emily Smith, Austin High
McCallum Vocational Commercial Art

1985-86
REPORT

Title: Research by External Agencies or Individuals in AISD

Contact Person: Glynn Ligon

SESQUICENTENNIAL TIDBIT

During this Sesquicentennial year of our State, it seemed prudent to look back over the past 150 years (actually 14 years) of records kept on external research. During this period, 427 proposals have been received—73 were submitted in the first year (1973).

Because of increased demands on the time of teachers and administrators as well as students, approval of external research has become more difficult to obtain. Thus, a reduction in research proposals has occurred. Numbers of proposals and acceptances over the past five years have been:

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposals</th>
<th>Approvals</th>
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<tbody>
<tr>
<td>1982</td>
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<td>1985</td>
<td>22</td>
<td>16</td>
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<tr>
<td>1986</td>
<td>22</td>
<td>14</td>
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</table>

For the eighth year, we are publishing the abstracts of research projects conducted within the Austin Independent School District by external agencies or individuals. Each of these researchers has had to go through a screening process in which AISD staff members from a variety of departments reviewed their proposals. This is to ensure that:

- The time and energies of AISD staff and students are protected.
- Only those projects meeting the criteria established by the District as conditions for participation in research are approved.
- High-quality research that fits the needs and interests of the District is promoted.

The Department of Management Information is the official point of first contact for all proposals to conduct research in the District. Many of these initial contacts are by phone or personal visit. Discussions at that time often result in the immediate determination that proposals are not viable. For those projects which do appear to be feasible, the researcher is provided forms and instructions for a formal proposal. When the formal proposal is received, a three-(or more) member administrative
review committee is appointed. The Department of Management Information makes a final decision on administrative approval or disapproval of the project based on the recommendations of the committee members. If approval is given, the Director works with the project director and appropriate AISD staff to select suitable schools and/or departments for the study. However, the principals on the selected campuses may decide that the research project would interfere with instructional efforts and disallow the project.

The researcher is required to provide an abstract for this volume as well as two copies of any dissertation, publication, or other report issuing from the study. These are kept on file at the Department of Management Information. The abstracts included in the publication are entirely the work of the authors named without the review or endorsement of the Department of Management Information.

A total of 22 proposals was reviewed between June 15, 1985, and June 15, 1986. Of these, 14 were approved (including one to be conducted during the next school year), one approved proposal was withdrawn, 7 proposals were disapproved, and one proposal is pending final decision.
<table>
<thead>
<tr>
<th>Project Number</th>
<th>Title of Research Project</th>
<th>Project Director, Sponsor</th>
<th>Schools Where Being Conducted</th>
<th>Full Report on File</th>
</tr>
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<tbody>
<tr>
<td>R83.03</td>
<td>The Impact of Basal Reader Characteristics on the Development of Reading Skill - a Longitudinal Study</td>
<td>Connie Juel, Philip Gough, Sponsor: University of Texas Faculty</td>
<td>Houston Elementary School</td>
<td>No</td>
</tr>
<tr>
<td>R84.03</td>
<td>Biological Investigations in High School Classrooms: A Cooperative Effort of Teachers, Students, and Scientists</td>
<td>Kathleen A. O'Sullivan, Sponsor: Dr. Earl J. Montague, U.T.</td>
<td>Anderson, Crockett, and Travis High Schools</td>
<td>Yes</td>
</tr>
<tr>
<td>R84.04</td>
<td>The Effect of Parent-Teacher Communication and Problem Solving on the Educational Development of Underachieving Elementary Children</td>
<td>Craig A. Porterfield, Sponsor: Martin Tombari, U.T.</td>
<td>Cook and Summitt Elementary Schools</td>
<td>Yes</td>
</tr>
<tr>
<td>R84.14</td>
<td>Organizational Factors Associated with Reducing Alienation in Schools Serving the Unpreferred Student</td>
<td>Jimmie L. Todd, Sponsor: Dr. Mike Thomas, U.T.</td>
<td>W. R. Robbins Secondary School</td>
<td>No</td>
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<tr>
<td>R84.16</td>
<td>An Observational Study of Young Children Using Microcomputers</td>
<td>Celia Genishi, Sponsor: University of Texas Faculty</td>
<td>Highland Park Elementary School</td>
<td>Yes</td>
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<tr>
<td>R84.19</td>
<td>The Effect of Brief, Structured Writing Practice on Children's Written Composition</td>
<td>Patricia O'Neal Willis, Sponsor: Diane L. Schallert, U.T.</td>
<td>Becker, Brooke, and Cook Elementary Schools</td>
<td>No</td>
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### ROSTER OF RESEARCH PROJECTS BY EXTERNAL RESEARCHERS

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<tr>
<th>Project Number</th>
<th>Title of Research Project</th>
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<tr>
<td>R84.21</td>
<td>Evaluating Students' Coping Style</td>
<td>James E. Gilliam</td>
<td>Webb Elementary School</td>
<td>No</td>
</tr>
<tr>
<td>R84.22</td>
<td>Knowledge of Forms and Functions of Print in Preschool-Aged Children</td>
<td>Nancy Roser, James Hoffman</td>
<td>Allan, Brentwood, Brown, Casis, Dawson, Govalle, Harris, Joslin, Oak Springs, Odom, Pecan Springs, Pillow, Rosewood, Summitt, and Zilker Elementary Schools</td>
<td>No</td>
</tr>
<tr>
<td>R84.25</td>
<td>Characteristics of Limited English Proficient Students in LD, MR, and SH Programs</td>
<td>Alba A. Ortiz</td>
<td>Central Office of Elementary Special Education</td>
<td>No</td>
</tr>
<tr>
<td>R84.27</td>
<td>Relationship Between Multiple Risk Factors and Child Outcome for Children of Adolescent Mothers</td>
<td>Anne Martin</td>
<td>Travis and Johnston High Schools and the Teenage Parent Program housed at Allan Elementary School</td>
<td>Yes</td>
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<tr>
<td>R85.02</td>
<td>Neuropsychological Deficits and Spelling Performance of Dysphonicet Learning Disabled Children</td>
<td>Cheryl Hiltebeitel</td>
<td>Cunningham, Langford, Oak Hill, Odom, Walnut Creek, Williams, and Winn Elementary Schools</td>
<td>Yes</td>
</tr>
<tr>
<td>R85.07</td>
<td>An Observational Study of the Teacher as Model of the Comprehension Process</td>
<td>Nancy Roser</td>
<td>Casis Elementary School</td>
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<tr>
<td>Project Number</td>
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<tr>
<td>R85.08</td>
<td>U.S. - Mexico Family Project (7th Grade Students)</td>
<td>Manual Ramirez, III</td>
<td>Fulmore, Pearce, and Martin Junior High Schools</td>
<td>No</td>
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<tr>
<td>R85.09</td>
<td>A Micro-Ethnographic Study of a Bilingual Kindergarten in Which Literature and Puppet Play Are Used as a Method of Enhancing Language Acquisition</td>
<td>Pat Seawell</td>
<td>Sanchez Elementary School</td>
<td>Yes</td>
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<td>R85.10</td>
<td>Factors Influencing Children's Concepts of Health and Illness</td>
<td>Maria E. Defino</td>
<td>Wooten Elementary</td>
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<td>R85.11</td>
<td>Social, Psychological, and Cognitive Predictors of Social and Psychological Adjustment in Adolescents</td>
<td>Walter E. Jordan-Davis</td>
<td>Office of Research and Evaluation</td>
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<tr>
<td>R85.13</td>
<td>Effects of the Implementation of a Minimum Competency Testing Program on the Acquisition of Mathematics Skills</td>
<td>Evangelina Mangino</td>
<td>Office of Research and Evaluation</td>
<td>Yes</td>
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<tr>
<td>R85.17</td>
<td>Ethical Issues Confronting Nurses Employed in Hospitals, Public Schools, and Community Health Agencies</td>
<td>Marie B. Andrews</td>
<td>AISD Health Services</td>
<td>No</td>
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# Roster of Research Projects by External Researchers

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<tr>
<td>R85.19</td>
<td>Teaching and Learning: Personal Constructs of the Participants</td>
<td>Deborah Muscella</td>
<td>Joslin Elementary School</td>
<td>No</td>
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<td>Sponsor: Dr. Stephen Larsen, U.T.</td>
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<td>R85.20</td>
<td>A Comprehensive Investigation of Process-Outcome Relationships in Physical Education</td>
<td>Stephen Silverman</td>
<td>Burnet Junior High School</td>
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<td>R86.01</td>
<td>An Eighteen Week Longitudinal Study on the Effects of the &quot;No Pass-No Play&quot; Rule, in the Austin Independent School District - Fall 1985</td>
<td>Linda A. Adams</td>
<td>Office of Research and Evaluation</td>
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<td>Sponsor: Dr. Ronald M. Brown, U.T.</td>
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<td>R86.02</td>
<td>High School Principals: An Analysis of their Preparation and Involvement in Facilitating the Implementation of an Instructional Project</td>
<td>Ian M. Penny</td>
<td>Travis, McCallum, Lanier, Anderson, Crockett, Johnston, LBJ, and Reagan High Schools</td>
<td>Yes</td>
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<td>Sponsor: Gene Hall, W. Rutherford, U.T.</td>
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<td>R86.03</td>
<td>Preparing for the World of Work: A Study of Learning Disabled Students</td>
<td>Susan Jorjorian</td>
<td>Anderson, Crockett, Reagan, and Travis High Schools</td>
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<td>Sponsor: Stephen C. Larsen, U.T.</td>
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<td>R86.04</td>
<td>The Relationship between ESL Language Learning Attitudes and Linguistic Attainment among Recent Immigrant, Native Spanish-Speaking High School Students</td>
<td>Daniel Joseph Livesey</td>
<td>Travis High School</td>
<td>No</td>
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<td>Sponsor: Dr. George Blanco, U.T.</td>
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<td>R86.05</td>
<td>Effects of the Mural Method of Integrated Imagery on Recall, Retention, and Transfer</td>
<td>Marcia H. Lind, Sponsor: Dr. Gary R. McKenzie, U.T.</td>
<td>Hill Elementary School</td>
<td>No</td>
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<tr>
<td>R86.07</td>
<td>A Cognitive Enrichment Approach to Teaching Mathematical Problem Solving</td>
<td>Carol Bell, Katherine H. Kopp, Sponsor: Carol Bell, AISD</td>
<td>Maplewood and Houston Elementary Schools</td>
<td>No</td>
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<tr>
<td>R86.08</td>
<td>United States - Mexico Family Study (kindergarten students)</td>
<td>Manuel Ramirez, III, Maurice Korman, Sponsor: University of Texas Faculty</td>
<td>Dawson, Langford, &amp; Williams Elementary Schools</td>
<td>No</td>
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<tr>
<td>R86.11</td>
<td>Development of Teaching Strategies for use with Limited English Proficient Children</td>
<td>Ann C. Willig, Sponsor: Dr. Alba A. Ortiz U.T.</td>
<td>Ortega, Sanchez, Campbell, Ridgetop, Wooldridge, Langford Elementary Schools and St. John's Special Early Childhood Program</td>
<td>No</td>
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<tr>
<td>R86.14</td>
<td>A Speech Discrimination Test for Spanish-speaking Hearing-Impaired Children</td>
<td>Frederick N. Martin, Sponsor: University of Texas Faculty</td>
<td>Allison, Govalle, and Brooke Elementary Schools and AISD Regional Deaf Program</td>
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<td>R86.15</td>
<td>Individual Differences in Comprehension Strategies During and After an Encounter with Difficult Text</td>
<td>Ellen Gagne, Steve Rholes, Sponsor: University of Texas Faculty</td>
<td>Brooke, Blackshear, St. Elmo, Joslin, Mathews, Zavala, Langford, Williams, and Patton Elementary Schools</td>
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<tr>
<td>Project Number</td>
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<tr>
<td>R86.16</td>
<td>The Effects of Visual Recall Questions During Prewriting on the Production of Descriptive Language in a Writing Task by Secondary Students</td>
<td>T. R. Vannatta Sponsor: Dr. Gary R. McKenzie, U.T.</td>
<td>Crockett High School</td>
<td>No</td>
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<td>R86.17</td>
<td>Single Parent/Homemaker and Wage Earner: Techniques for Managing Dual Roles</td>
<td>Wilma Pitts Griffin Sponsor: University of Texas Faculty</td>
<td>Travis and Johnston High Schools and the Teenage Parent Program housed at Allan Elementary</td>
<td>No</td>
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<tr>
<td>R86.21</td>
<td>An Evaluation of the Art Enrichment Program Objectives - 1981-1985</td>
<td>Donna L. Vliet Sponsor: Dr. Jarvis Ulbricht, U.T.</td>
<td>Burnet, Fulmore, Lamar, Martin, Murchison, Pearce, and Porter Junior High Schools; Anderson, Austin, Crockett, McCallum, Reagan, Robbins, and Travis High Schools</td>
<td>No</td>
</tr>
<tr>
<td>R86.22</td>
<td>Using HONEY: An evaluation of strategies to promote effective use of Health Objectives in Nutrition Education for Youth (HONEY)</td>
<td>Sue Polasek Sponsor: Dr. Margaret Briley, U.T.</td>
<td>To be determined</td>
<td>No</td>
</tr>
</tbody>
</table>
The Impact of Basal Reader Characteristics on the Development of Reading Skill--A Longitudinal Study

Abstract

Dr. Connie Juel, Ph.D. and Dr. Philip Gough, Ph.D.

Participating Schools: Houston Elementary

Description of Study: The purpose of the study was to describe development in word recognition, spelling, reading comprehension, and writing. We were particularly interested in how growth in each of these skills is influenced by incoming abilities, school developed skills, and basal reader characteristics.

Description of Results: This longitudinal study followed the growth in literacy of the same group of children as they went from first through fourth grade. Summarizing the main results so far: 1) Incoming phonemic awareness (i.e., the ability to distinguish and manipulate sounds in words, such as substituting a /k/ for /t/ in the word "part" to form "parr") was the most potent predictor of skill in word recognition, spelling, and reading comprehension through second grade; 2) Children with poor entering phonemic awareness gained more in phonic skill and word recognition if they were placed in the basal series with more controlled vocabulary (i.e., American Book Company); 3) Children who finished first grade with poor skill in phonic analysis and poor word recognition progressed in second grade only if they had gained phonemic awareness and if they were not moved too quickly through their basals; 4) Many poor readers were placed in basals where they could read far less than 90% of the core vocabulary (i.e., on a "frustration" level); 5) Reading comprehension was largely determined by a child's skill in word recognition through second grade; 6) Listening comprehension began to influence reading comprehension after second grade; 7) Years in school affected children's skill in word analysis more than skill in vocabulary and listening comprehension.

Implications of Results: A strong relationship was found between word recognition and spelling. These two skills might well be taught together. Only a weak relationship was found between reading comprehension and writing. Writing appears to require more development in creating and organizing ideas.

Implications for AISD: 1) Since children did not learn spelling-sound relationships even though they had been exposed to significant amounts of print and LOMS - unless they had some phonemic awareness - the district might consider developing oral phonemic awareness training for the children who need it. 2) Pacing of poor readers through basals may need closer monitoring if these children are to be kept from being at "frustration" levels. 3) More may need to be done to expand the vocabulary and listening comprehension skills of children who enter school weak in these areas.
BIOLOGICAL INVESTIGATIONS IN HIGH SCHOOL CLASSROOMS:
A COOPERATIVE EFFORT OF TEACHERS, STUDENTS, AND SCIENTISTS

Abstract

Kathleen A. O'Sullivan, Ph.D.

Participating Schools: Anderson High School, Crockett High School, and Travis High School.

Description of the Study: The purpose of this study was to evaluate the effects of cooperative biological investigations on high school biology teachers, students, and university scientists. Three investigations were conducted: (1) an insect collection at Travis High School in October, 1983, (2) an identification of seagrass seeds reserves at Crockett High School in February, 1984, and (3) a measurement of buckeye floral structures at Anderson High School in April, 1984. All of the investigations included (1) teacher-presented lessons on the topic, (2) teacher demonstrations of data collection procedures and techniques, (3) student collection and recording/preparation of data, and (4) two presentations by the cooperating scientist, one prior to and one following data collection on the purpose and results of the investigation, respectively. For some of the classes in each investigation these presentations were live; other classes viewed videotapes of the presentations. Ten classes and four teachers participated in the insects investigation, fourteen classes and six teachers participated in the seeds investigation, and six classes and three teachers participated in the flower investigation. Seven additional teachers and eight additional classes served as controls. For each investigation measures of science processes understanding and attitudes toward science (four scales for students, seven scales for teachers) were administered to participating and control teachers and classes. Participants also completed questionnaires designed to elicit responses to particulars of the investigation. The three scientists were interviewed to evaluate the reliability and usefulness of the student-collected data and to elicit their reactions to the investigations.

Description of Results: Analyses on adjusted class means, N = 34, for all three investigations indicated no significant differences on the science processes and four scales of the attitudes toward science measures among the insects, seeds, flowers, and control classes. For the Attitude to Inquiry Scale of the attitudes toward science measure, the live group mean score was significantly (p = .033) more positive than the video group mean score. Analyses on teacher scores on the science processes and six of seven scales of the attitudes toward science measures indicated no significant differences between the participating and control group teachers. The participating teachers' score was significantly (p = .028) more positive on the Social Implications of Science scale of the attitudes toward science measure. The overall response of students to the investigations themselves, as indicated on the questionnaires, was positive, with over half the students in each investigation reporting that they enjoyed learning about the topic this way and that they would like to participate in a different investigation with another scientist. On the teacher questionnaire, all thirteen teachers agreed that they enjoyed participating, working with a scientist, and working on an open-ended investigation. All but one teacher, who was uncertain, felt that the experience was worthwhile for students and eleven teachers felt the experience was worthwhile for themselves (others uncertain). Twelve teachers...
believed they had made a genuine contribution to a scientist's research and eleven believed the same for their students (others uncertain). The interview responses of the scientists indicated, with minor reservations, their satisfaction with the collected data, their enjoyment of the experience, and their willingness to contribute to secondary science education through such investigations.

Implications of Results: Statistical analyses of the data collected on students' and teachers' understanding of science processes and attitudes toward science indicated that the cooperative investigations of the study had minimal effects as measured by the instruments used. The difference for students on the Attitude to Inquiry Scale, favoring the live treatment over the video treatment, and supporting data from the student and teacher questionnaires suggested that the use of videotapes appeared to diminish the impact of such experiences on students' attitude to inquiry. The difference for teachers on the Social Implications of Science Scale indicated that the experiences positively affected teachers' attitudes toward the social implications of science. There was strong descriptive evidence from the study that students enjoyed the investigations and that teachers perceived them as worthwhile for themselves and their students. The study demonstrated that intact classes of students could collect useful data for a scientist and that the scientists considered their participation worth the effort involved on their part.

Implications for AISD: The cooperative biological investigations of this study had little or no effect on high school biology teachers' and students' process skills understanding and attitudes toward science as indicated by scores on the measures utilized in the study. However, teachers did consider the experiences as worthwhile for both themselves and their students, students did report the experiences as enjoyable learning, and the scientists perceived them as viable. It should also be noted that regular, intact classes were involved; the investigations were not intended for advanced classes or gifted students. With reservations, the study indicated that such cooperative efforts have positive potential for AISD biology teachers and their students and university scientists.
THE EFFECT OF PARENT-TEACHER COMMUNICATION AND PROBLEM SOLVING ON THE EDUCATIONAL DEVELOPMENT OF UNDERACHIEVING ELEMENTARY STUDENTS

Abstract

Craig A. Porterfield, M.A.

Participating Schools: Cook and Summitt Elementary Schools

Description of Study: The purpose of this study was to examine the effects of establishing an ongoing, collaborative problem solving relationship between elementary school teachers and the parents of underachieving children. During the spring of 1984, the study was conducted with elementary school teachers from four AISD schools with encouraging results. The parents of two underachieving students from each of their classes were randomly assigned to (a) be contacted by telephone once a week for six consecutive weeks, or to (b) receive only the usual teacher-parent communication. The purpose of the frequent telephone calls was for the teachers to get the parents to help them figure out how to improve the school work and related problems of the underachieving child. Teachers attended a 7-hour workshop to learn some specific techniques to achieve this purpose. Compared to the children whose parents were not contacted by teachers, children whose parents were contacted by teachers showed greater gains in attitude toward school, perceived academic competence and the percent of reading, mathematics and language arts assignments completed and completed correctly. All of the teachers and all of the parents except one were enthusiastic about the project and reported specific benefits for themselves and the children. A hypothesis was raised that the misapplication of these methods (i.e., interacting with parents in an authoritarian rather than a collaborative manner) results in negative parent and student attitude.

There was only a total of five teacher participants in the spring, 1984, study, however. Therefore, it was deemed necessary to replicate the study with a larger group of subjects in order to see if the results were reliable. The study was replicated with student teachers in the fall of 1984 who were ostensibly required to participate as part of their student teaching experience.

Description of the Results: Administrative problems at the sponsoring university led to nonparticipation of most of the student teachers and to rumors that some of the data and parent contacts were fabricated. Therefore, the student-teacher data are not reliable enough to report in detail in this abstract. It is noted, however, that the results of the student-teacher study were less consistent than the results of the teacher study, and the student teachers were less enthusiastic about the project than the elementary school teachers who had participated in the spring of 1984. Besides the fact that the spring teacher participants did not seem to fabricate their data, they were voluntary participants...
in the project, were more able to attend the follow-up training sessions and were better skilled in the problem-solving conference techniques than the student teachers.

**Implications of Results:** The 1984-85 study did not add any new implications because of the administrative problems at the sponsoring university noted above, which led to nonparticipation of most of the student teachers and to rumors that some of the data and parent contacts were fabricated. Based on only five teachers, the spring, 1984, study still needs to be replicated with a larger group of subjects. As noted in the 1983-84 abstract, the preliminary impressions of the spring, 1984, study were that, when elementary teachers use the prescribed methods on an ongoing basis to get the parents of underachieving children to help them figure out how to resolve the children's work performance and related problems, the students improve their work performance and attitude toward school. A hypothesis was raised that the misapplication of these methods (i.e., interacting with parents in an authoritarian rather than a collaborative manner) results in negative parent and student attitude.

**Implications for AISD:** As noted in the 1983-84 abstract, the preliminary impressions of the spring, 1984, study were (a) that the types of skills taught in this project would be very valuable to AISD teachers who want to improve their abilities to get parents to help them figure out how to improve the school problems of underachieving children, and (b) that the ongoing use of these methods can lead to improved student work performance and attitude. These results still need to be replicated with a larger group of teachers to see if they are reliable.
Abstract

Jimmie L. Todd

Participating Schools: Robbins High School

Description of Study: The purpose of the study was to identify whether the organizational structure of alternative schools impacted the students' attitude toward school and their alienation from school. Examined in this study were whether or not the teachers control strategies and the organizational characteristics (hierarchy of authority, rules and regulations, and impersonalization) influenced the students' attitude toward school and their alienation from school. The study was limited to alternative schools in Texas which have been in operation five or more years.

Description of Results: The data is in the process of being analyzed. A complete report will be filed with Austin Independent School District when the study is completed.

Implications of Results: The implications will be forthcoming upon completion of data analysis.

Implications of AISD: The study will provide Austin Independent School District with knowledge of which components of an alternative school are associated with reducing students' alienation from school and improving their attitude toward school. These implications will be included in the dissertation and abstract.
An Observational Study of Young Children Using Microcomputers

Abstract

Celia Genishi, Ph.D., and Pamela McCollum, Ph.D.

Participating School: Highland Park Elementary

Description of Study: The purpose of this study was to observe how kindergarteners and first graders used the computer language Logo in a computer laboratory setting. As they use Logo, children learn fundamentals of programming; with their commands they create geometric shapes and other graphics. Creating these graphics on their own depends on children's abilities to learn the appropriate commands and to problem solve. Our primary interest was in testing the claim that the use of Logo leads to considerable social interaction and talk among children, as well as problem solving. We collected 22 hours of videotape, which recorded the children's activity with the computer and each other, as well as their actual keystrokes on the computer, over a 3-month period in the spring.

Description of Results: Using a case study approach, we have thus far transcribed the videotapes of seven of eight focal kindergarten children. In a preliminary analysis we described the kinds of talk five children engaged in as they used Logo. The unit of analysis was the Turn, defined as one speakers' utterances, including at least one complete proposition, bounded either by other speakers' utterances or notable pauses. Coding categories were assigned to each turn to begin to determine the nature of children's talk. These categories were applied in mutually exclusive pairs: Task-related vs. Nontask-related; Other-directed vs. Self-directed; Child-child vs. Teacher-child; and Cooperative vs. Argumentative. For the six class sessions transcribed, the mean number of Turns was 212 (range: 78 - 384 turns per session). The mean percentage of Task-related turns was 95% (range: 91 - 99.997%); Nontask-related turns were 5% (range: .003 - 9%). The mean percentage of Other-directed turns was 91% (range: 81 - 99.994%) while Self-directed turns were 9% (range: .006 - 19%). Child-child turns accounted for the majority of the turns of talk with a mean percentage of 62% (range: 49 - 82%); Teacher-child turns occurred 38% of the time (range: 18 - 51%). Cooperative turns made up 97% (range: 91 - 100%), while Argumentative turns only occurred in 3% of the turns (range: 0 - 9%). Finally, an average of 97% of turns of talk were categorized as Non-playful (range: 95 - 100%), and 3% (range: 0 - 5%) were Playful.
More recently we did a more refined analysis of two of the kindergarteners. We analyzed Self-initiated Interactions, Attention-getting, Reporting, Explaining, Directing, Requesting, Confirming, and Giving and Getting Help. Incidents in which children experienced difficulty because of lack of familiarity with computer terms (e.g., program bug) were also studied. In both of these analyses of talk, we found that the teacher's role was crucial. She was always in demand, and children were unable to solve certain problems without her help.

Implications of Results: The kindergarten children's competence in managing their computing environment was striking and their enthusiasm and confidence, evident. Logo presented a variety of learning opportunities in a short period of time that seem well suited to problem solving and utilizing social skills. The collaborative behavior, which flourished in the kindergarten lab, was encouraged by the kindergarten teacher's verbal prompts and her relative inaccessibility. It was empowered by the children's sophistication and knowledge. In general, this study supports the findings of previous reports that Logo invites collaboration while computing and that computing continues to be a social activity even after the novelty of going to the lab wears off. It also raises the question of how self-guiding the Logo program is. The major implications for practice are that (1) Logo leads not only to learning about creating graphics and varied geometric shapes; it also encourages children to learn from each other as they practice social and linguistic skills. (2) For kindergarten children, using Logo may require a considerable amount of teacher intervention.

Implications for AISD: Since the findings we reported are based on only one classroom and one teacher, they are clearly not generalizable to the school district. What we observed, however, suggests that using Logo is an appropriate activity for kindergarteners. It was not too difficult for the children we observed, and it clearly encouraged collaborative learning. In schools where there is a computer laboratory, teachers may want to explicitly tell children to ask other children for help. In schools where children use computers in the regular classroom on their own, the teacher may need to make herself/himself available, so that children can get enough information to move along in the Logo program. Logo does not impress us as self-guiding, at least at the kindergarten level.
The Effect of Brief, Structured Writing Practice on Children's Written Composition

Interim Report
Pat O'Neal Willis

Participating Schools: Brooke, Becker, Cook.

Description of Study: The purpose of this study is to examine the effect of a year-long writing program on the overall quality of children's written compositions. The program was incorporated into the curriculum of one sixth grade teacher who had complete charge of its daily administration.

The treatment consisted of brief, consistent, structured writing practice administered three times per week. Each session was introduced by means of guided fantasy which was used as a catalyst for text design. Following the presentation of the guided fantasy, students wrote for ten minutes without stopping. They were allowed to write about the topic presented in the fantasy or about another topic of their choice. The goal of each ten-minute session was to produce the first draft of a text. Mechanics of writing (i.e., handwriting, spelling, and punctuation) were de-emphasized during this initial writing period. De-emphasizing mechanics was important because it encouraged writers to devote their whole attention to creating the message conveyed by the text. Guided fantasy was important because it allowed students to experience textual content before they wrote about it.

The effect of this treatment is being measured by comparing the target group to two control groups where different types of writing practice have been used as a part of the regular curriculum. Two teachers, who are considered outstanding educators, volunteered to participate. Their participation in the study allowed a check of whether any improvement observed in the treatment might be attributed simply to teacher effects. In the first control group, brief unstructured daily writing practice took place. This practice involved students' writing in journals. In the second teacher's classroom, daily writing was not a practice. Writing in this classroom consisted of weekly assignment of formal papers which were submitted to the teacher for a grade.

The comparison of writing ability among the three groups is being measured by analyzing students' performance on five formal, in-class writing assignments administered during the spring at one-month intervals. The product of these combined assignments was 330 written texts.

Status of Study: Data for this study have been collected but all are not available for analysis at this time.
Impact of the Data Collection Procedure: A videotape describing the instructional method used with the treatment group was completed in January, 1985. The tape, entitled "Writing Aerobics," was aired on AISD's education channel this spring.

Due to the success demonstrated by the treatment group, two principals requested and obtained permission to expand the program on a six-week trial basis. This pilot project was designed to impact more teachers and students and to expand the scope of the Writing Aerobics technique to include peer editing and second draft revision for content. Late in the spring of 1985, four teachers were trained to use the Writing Aerobics technique with their students. Two teachers were based at Brooke and two at Ortega. Three were regular classroom teachers (6th grade) and one was a Chapter I reading teacher. The Chapter I teacher used the program with eleven 4th-grade students who ranked lowest on the Iowa Test of Basic Skills (ITBS) at Brooke. Approximately 90 students were involved in this six-week pilot study. In addition to the Chapter I students, the sample group included one Aim-High class from Brooke, and a high-middle to middle level group, and a low-middle to low-achieving class from Ortega. Approximately one-third of these 90 students scored below the thirteenth percentile in reading and language arts on the ITBS.

The four teachers were trained by means of an orientation inservice, demonstration lessons, and guided implementation of the technique with their own language arts classes.

In addition to the student writing program, an adult writing program was established to allow teachers to experience the writing program first hand. Teachers wrote at home on a topic of their choosing and shared that composition with fellow writers in the group. Meetings were held on a weekly basis over a seven-week period.

Teachers and students were surveyed before and after the pilot project to assess the effectiveness of the intervention on teacher and student participants. Results of those surveys are summarized below.

Impact on Students:

(1) There was a positive effect, across the board, on students of all ability levels. Without exception, at the end of six weeks, all 90 students were writing better, revising better, listening better, and commenting more knowledgeably on the literary features of other students' texts.

(2) There was an air of mutual respect and "professional acceptance" that developed as students came to know one another as literary beings.

(3) Students' development of pride in their own compositions was noticeable.

(4) Teachers noted an emergence of shy, withdrawn students into the mainstream of classroom life that occurred through sharing compositions.
(5) The writing program became a socially acceptable vehicle for expressing feelings.

(6) The program offered an opportunity for teachers and peers to provide each student with positive, ego-boosting individual attention two to three times weekly through sharing compositions orally.

(7) There was a total absence of discipline problems during writing and sharing times.

(8) Teachers noted the coherence of student compositions, irrespective of ability level.

(9) There was an increasing desire by students to hear positive comments and constructive criticism regarding their own work.

(10) Teachers commented that peer critiquing had a generalized impact on the writing of students who served as audience.

Impact on Teachers:

(1) All teachers were enthusiastic about the results of the experiment and intend to continue the program.

(2) There was increased interest on the part of teachers not included in the project.

(3) There was high interest and strong desire to continue the adult writing group. Teachers felt this group helped them to enjoy writing more and feel more confident and relaxed about writing. They felt motivated to write due to their commitment to the group. Teachers commented that listening to and critiquing others' writing helped them to improve their own listening skills. Participation in the group caused teachers to stretch themselves intellectually. It also offered a forum where they could get to know other professional educators in a more personal way. This caused them to feel less isolated professionally.

(4) Teachers commented that they saw the adult writing group as providing a forum where educators, through writing, could express and share personal and professional ideas, thoughts, frustrations, and hopes. They viewed this collegial networking as an opportunity for professional growth.

Impact on Principals:

(1) The two principals involved at Brooke and Ortega were enthusiastic about the results of this pilot project and wish it to continue.

(2) The principal of Maplewood is interested in joining the project. She is especially interested in learning the technique herself so that she can share it with her staff. She would like to include in the project one teacher of the visually impaired, one resource teacher, and one regular classroom teacher.
Implications for AISD:

(1) Staff might be expanded to include regular teachers from grades 4-6 as well as special area teachers and principals. Teacher networking could be encouraged through establishment of other adult writing groups.

(2) Academic content should be expanded to include these writing tasks: rough draft composition, second drafts (revised for content), and third drafts (revised for mechanics). Sharing could be done in both large and small group settings. This writing technique could be expanded to include other content areas (e.g., social studies and science).

(3) Written products could include a kit for grades 4 to 6 (story starters, manual, audio tapes of story starters), a monograph on facilitating emotional growth through written composition, and periodic journal articles.
EVALUATING CHILDREN'S COPING STYLE

Abstract
James E. Gilliam, Ph.D.

Participating School: Webb Elementary School

Description of Study: The purpose of this research was to gather data on the concept of coping. Specifically the researcher was interested in determining how elementary age students respond to social stressors. An experimental edition of the Test of Coping Style was designed and administered to 66 students at Webb Elementary School. The Test of Coping Style is a 24 item open-ended questionnaire which asks students what they would do in response to a stressful event. For example, "What would you do if someone tried to pick a fight with you?" Items of this nature were posed and the students wrote in their answers.

Description of Results: Data are currently being analyzed. Preliminary analysis indicates that the sample subjects utilize ten basic styles for coping with stressful social events. These styles and behavioral examples are:

Aggression- take some form of action to remove the source of the stress. (eg. fight, swear, insult, etc.)

Assertion- do something to inform the person that what s/he is doing is not liked by the subject. (eg. confront the person, tell him/her what it is that is not desired; ask the person to stop doing whatever it is that is causing stress.)

Compliance- object or succumb to the demands made by the person. (eg. go along, let him/her have his/her way, give in.)

Control- take some action to gain some control of the situation. (eg. call for help, tell someone what is happening, problem solve.)

Denial- say or do something to not recognize the stress. (eg. pretend, try to make the person laugh, make excuses.)

Emotion- react with some strong feeling. (eg. cry, get angry, feel hurt, feel guilty.)

Ignore- not respond. (eg. move away, be quiet, not do anything.)
Non Compliance - do something in opposition to what the person expects. (eg. defy, argue, disobey,)

Withdrawal- withdraw and attempt to avoid the situation. (eg. be quiet, pout, suik.)

These common or basic styles of coping are being further analyzed to determine what common factors are present.

**Implications of Results:** Elementary age school students do appear to use certain styles of coping when reacting to stress. Given knowledge of an individual student's coping style, teachers can better prepare for interacting with the student, and can plan behavioral strategies to accommodate the student's needs and develop activities to teach the student more adaptive coping methods.

**Implications for AISD:** If further data analysis confirms that certain students predictably respond to social stress in school by specific coping techniques and the Test of Coping Style can identify what students are likely to react in what ways, preventive planning can occur to lessen disturbances in school.
KNOWLEDGE OF FORMS AND FUNCTIONS OF PRINT IN PRESCHOOL-AGED CHILDREN

Abstract

Nancy Roser, Ph.D. and James Hoffman, Ph.D.


Description of Study: The purpose of this study is to advance our understanding of early literacy by describing the developing knowledge of forms and functions of print in two-, three-, four-, and five-year-old children prior to formal literacy instruction. All preschool children are younger siblings of successful first grade readers who were nominated by their teachers. Sixty-three young children have been interviewed about various examples of written language presented in a set of slides. The print examples represented multiple forms and functions of written language sampled from the environment (e.g., a STOP sign) and books (e.g., a nursery rhyme). Additional perspectives on the children's print awareness came from a writing sample, a book handling task, and a parent interview. The parent interview focused on (1) the characteristics of the home environment in which the children are nurtured, (2) parental expectations for success of their children as 'readers', and (3) parental attributions for their children's success in reading.

Description of Results: Analysis continues; however, preliminary results (1) support the contention that young prereaders, especially those from homes which had already fostered a successful first grade reader, hold broad and accurate notions of print forms and functions reflecting a reader's knowledge of print, and (2) suggest that children are not only read to, but are also exposed to both adult and sibling reading models. In addition to ongoing analysis, we are presently engaged in the two-year follow-up of the preschool children's progress toward literacy.

Implications of Results: Through this study we hope to be able to describe patterns of growth in knowledge of forms and functions of print among two-, three-, four-, and five-year-old siblings of successful first grade readers. Parental data, considered in combination with other facets of the study, should advance our understanding of the relationship of the home environment to early literacy development.

Implications for AISD: We will develop a brochure for parents describing our findings related to early literacy development in homes fostering at least one successful AISD first grade reader.
Characteristics of Limited English Proficient Students in LD, MR, and SH Programs

Abstract

Alba A. Ortiz, Ph.D.

Participating Schools: AISD was one of three school districts in Texas participating in this study. Subjects were handicapped Hispanic students in grades two through five who were being served in classes for the communication disordered, learning disabled, or mildly mentally retarded. There was no direct involvement of AISD schools, as all student data were obtained from central office files.

Description of Study: The purpose of this study was to identify referral, assessment and intervention practices that result in the provision of effective special education services for limited English proficient (LEP) and bilingual students. Data which described characteristics at the time of initial placement for a population of approximately 360 mildly mentally retarded, learning disabled, and communication disordered students who were receiving special education services were collected from each school district. The various practices, instruments, and procedures used by the districts in referral, assessment, and placement of LEP and non-LEP Hispanics in special education were examined. During the second year of the study, follow-up data were collected for all students who had had a 3-year reevaluation.

Description of Results: Data for the LD sample across the three participating districts have been analyzed. Because there were an insufficient number of MR students in the district, AISD was not included in analysis of data on MR students. Analyses of speech data are in process, as are analyses of follow-up data for all subjects.

Data revealed that participating districts used essentially the same procedures to assess and place LEP students in special education as were used for Anglo students. Due to a lack of current language proficiency data, and because appropriate assessment procedures are generally not available, it was not possible to determine whether the subjects were actually learning disabled or were in the process of acquiring English at the time of placement in special education. For some students, significant discrepancies between intelligence and achievement, the operational definition of a learning disability, may have been an artifact of testing conducted in English.

Implications of Results: This study provided an initial data base upon which to base recommendations for policies and procedures related to special education services for handicapped LEP students in Texas. The LD report includes these recommendations.
Implications for AISD: Analysis of results by district should yield information which can be used by the district to adapt the special education referral, assessment, and placement process to more effectively serve LEP students.

This study is being conducted by the Handicapped Minority Research Institute on Language Proficiency, Department of Special Education, The University of Texas at Austin.
Relationship Between Multiple Risk Factors and Child Outcome for Children of Adolescent Mothers

Abstract

Anne Martin, Ph.D.

Participating Schools: Johnston High School, Travis High School, and Allen Elementary School Teenage Parent Program.

Description of Study: Numerous studies have identified children of adolescent parents as a group at risk medically, cognitively, and socially. However, little research has looked at differences within a group of children of teenage mothers in order to predict which children within this population are at greatest risk. The purpose of the present study was to identify which of the factors discussed in the literature on adolescent parenthood were most predictive of developmental delay for children of adolescent mothers.

Description of Results: Seven factors were found to be most predictive of the developmental status of the child. These factors were used to form the following decision rule index:

1) Was the child's birth weight below 5½ lbs.? 2) Was the mother's weight gain during pregnancy less than 15 lbs.? 3) Was the length of pregnancy less than 8 months? 4) Was there more than one complication at the time of birth? 5) Was the hospital stay at birth more than 10 days? 6) Has the child been hospitalized any since birth? 7) Did the mother receive special education services while in school? An answer of yes to two or more of these questions indicated a high risk of developmental delay/handicapping condition. The use of this decision rule index accurately predicted the developmental status of 92% of the 106 subjects.

Implications of Results: The great majority of children screened for this study tested normal in their development, suggesting that the majority of the young mothers and their families had been able to provide their child with at least the minimum care needed to insure normal development. However, when two or more of the risk conditions listed above were present, the likelihood of developmental delay was great. The potent impact of medical/health concerns and the mother's own developmental status was highlighted. No environmental characteristics (such as income level, ethnicity, or family composition) were as highly predictive as were these more biologically oriented factors.
Implications for AISD: The results presented above are necessarily tentative since the decision rule index has been used with only one sample in determining its predictive usefulness. However, with this caution in mind, it appears that the decision rule index may offer a quick guide to suggest which children of adolescent mothers are at greatest risk of developmental delay and in need of further assessment. This information could be of use to those AISD programs and staff who work with adolescent parents in helping them receive needed services for their children.
Neuropsychological Deficits and Spelling Performance of Dysphonetic Learning Disabled Children

Abstract

Cheryl Hiltebeitel

Participating Schools: Cunningham, Langford, Oak Hill, Odom, Walnut Creek, Williams, and Winn Elementary Schools

Description of Study: The purpose of this study was to delineate some of the neuropsychological deficits that may be found for learning disabled children who demonstrate an inability to spell with phonetic accuracy (dysphonetic subtype). Four neuropsychological tests of auditory-verbal function were administered to 21 fourth- and fifth-grade boys classified as dysphonetic by the Boder Test of Reading-Spelling Patterns and to 20 of their normally-achieving peers. Step-wise discriminant analysis was employed to determine whether or not scores on these measures could discriminate between the two groups. Supplementary information concerning intellectual abilities and achievement levels also was obtained from the children's school records, in order to examine possible patterns in the data for the dysphonetic children.

Description of Results: Two of the auditory-verbal measures were found to discriminate between the two groups of children with 75.61% accuracy. These were the Speech Sounds Perception Test, a test which involves listening to a series of nonsense words and selecting a written word which matches each of the orally presented words, and an Auditory Closure Test, which presents the child with sequences of isolated sound elements that must be blended into recognizable words. Scores on a Sentence Memory Test and a Verbal Fluency Test did not discriminate between the two groups of children. In contrast to expectations, however, a significant difference was not obtained because a number of the normally-achieving children performed poorly on these two latter measures. Inspection of the intelligence data revealed that most of the dysphonetics earned lower scores in the verbal domain than in the nonverbal domain.

Implications of Results: These results support the hypothesis that dysphonetic children experience some degree of auditory-verbal dysfunction, although pervasive deficits were not manifested in terms of poor performance on all four of the auditory-verbal measures. Nevertheless, performance deficits on these measures, which have been associated with dysfunction of the left cerebral hemisphere, allow the suggestion that specific brain-related deficits may be found in the subtype of learning disabled children characterized by poor appreciation of the phonetic features of words that are necessary for accurate spelling.
Implications for AISD: Conclusions derived from these results may prove to impact educational planning for students with a learning disability manifested in this type of spelling difficulty. The results provide preliminary evidence for brain-related limitations which may affect the way in which these learning disabled children can learn to read and spell. Because of their limitations, these children may be unable to benefit from remedial activities based upon repetition of phonics instruction. Thus, more accurate delineation of the impaired functions should direct the selection of the specific remedial approach that is most appropriate for this population.
An Observational Study of the Teacher as Model of the Comprehension Process

Abstract

Nancy L. Roser

Participating Schools: Casts Elementary.

Description of Study: The purpose of this investigation was to describe the language interactions of teachers and young children as they responded to selected examples of literature during storytime in kindergarten and first grade. Audio- and/or videotape recordings were made three-times weekly over a period of eight weeks in each of two classrooms. Teachers read a total of 24 books varying in genre and in teacher-pupil familiarity with the titles. In addition to analyses of the form, type, and focus of language responses, teacher language was inspected and analyzed to determine how teachers of beginners model the process of comprehension while reading aloud.

Description of Results: In previous studies of booksharing both between parents and young children and preschool teachers and their classes, results have indicated that adults assume different language roles in home and school settings. An inspection of the language interaction patterns between these teachers and children as text was shared aloud seemed a likely method for gaining insight into the ways young children attempt to construct meaning, as well as for investigating how the adult reader aids children in becoming active processors of text. These preliminary results (based on analyses of adult language) represent an attempt to induct and represent the teacher's model of comprehension based on the teachers' uses of language. Results indicate that teacher talk in response to text signaled these beginners that: 1) text holds answers to their questions; 2) readers can make predictions about text; 3) the accumulation of story details allow for assimilation of story events; 4) books record stories that are true and that are fanciful; 5) readers can wonder and think about the logic of events; 6) stories sometimes require additional information or background knowledge to be understood; and 7) readers can link their experiences with those in books. Children's responses to text mirror the form and focus of their teachers.

Implications of Results: Teachers of young children demonstrate a wide range of attempts to ensure comprehension of stories and books read aloud. These behaviors included activating background knowledge, clarifying vocabulary, encouraging speculation, prediction, comparison making and supporting inferences, and linking literature thematically. Children in both classes demonstrated levels of comprehension typically connected with higher grade and achievement levels. The storytime comprehension behavior of these prereaders and early readers then do not corroborate existing literature which indicates that comprehension is not "taught." Both teachers indicated well-developed models of teaching reading comprehension and these language behaviors correlate with children's responses to text shared aloud. Researchers have just begun to study storytime (sometimes called a "literacy event") as a possible crucial element in children's acquisition of reading. If teachers are to better help children become increasingly literate, they must become more sensitive to the ways of orchestrating instructional events that will have an effect on student participation and learning. By studying the strategies of effective teachers and
their effects on pupils' comprehension, we can gain access to the potential of the teacher as a model of reader-thinker as a step toward better teaching of reading comprehension.

Implications for AISD: Tapes and transcripts from these model teachers may serve for inservice sessions with others interested in the potential of storytime in their classrooms. Publications from this work will appear in *Language Arts* and other professional journals.
U.S.-Mexico Family Project (7th Grd Students)

Abstract

Manuel Ramirez III, Ph.D. and Maurice Korman, Ph.D.

Participating Schools: The purpose of this cross-cultural study is to identify characteristics of children and families which are related to success in school. The study is assessing interaction patterns in middle class Anglo and Mexican American families in Austin and those of Mexican families in Monterrey, Mexico. In addition, the values, and intellectual as well as personality characteristics of these families and individuals are being investigated and contrasted.

Description of Results: Preliminary findings from the questionnaires and interviews indicate that the families of academically successful children in all three cultures are more cohesive and cooperative than the families of children who are experiencing problems of academic achievement.

Implications of Results: To do primary prevention with respect to school failure it is necessary to encourage parents to be more involved with their children and to spend more time with them.

Implications for the AISD: Drop-out prevention programs need to focus on how families at risk can begin to utilize some of the approaches and techniques of socialization used by the families of successful children.
A MICRO-ETHNOGRAPHIC STUDY OF A BILINGUAL KINDERGARTEN
IN WHICH LITERATURE AND PUPPET PLAY ARE USED
AS A METHOD OF ENHANCING LANGUAGE ACQUISITION

Abstract

Rita P. Seawell, Ph.D.

Participating School: Sanchez Elementary

Description of Study: The present study had two main purposes: (1) to create an activity in which young children could acquire language authentically, and (2) to identify and describe aspects of that activity which appeared to enhance their language acquisition.

Description of Results: Fourteen hours of audio and videotapes of a class of 25 children, grouped in triads and dyads for a literature/puppet play activity in which Spanish and English books were read, were analyzed to describe the manner in which the activity fostered language growth. In order to do this the data were separated into three broad categories: literature-related language, communicative strategies, and emergent literacy patterns. Literature-related language was subcategorized into narrative language (dramatizing and impersonating) and comprehension language (correcting another, paraphrasing/extending, and drawing conclusions). Communicative strategies were subcategorized into simulation strategies (prompting, echoing/repeating, creative constructing, and recalling) and code-switching strategies (maintaining, supporting self, supporting another). Emergent literacy patterns were subcategorized into pretending to read, matching the written with the spoken language, and anticipating learning to read as a desirable achievement. Findings included: (a) during the literature/puppet play activity the language used was more diverse and often more complex than that generally found in adult-child or child-child interactions; (b) during the literature/puppet play activity simulation and code-switching enabled the children to sustain communication; (c) during the literature/puppet play activity the children found abundant opportunities in which to pretend to read and to acknowledge the graphophonetic connection; several children voiced pride in being able to read, and all appeared to find the activity engaging. It was concluded that literature and related puppet play can provide young bilingual children with an engaging way to experience language growth in both their languages.

Implications of Results: Children's literature and related puppet play can provide young bilingual children with an engaging way to experience language growth in both their languages. Therefore, if the goal is to foster language growth among young bilingual children, a literature/puppet play activity might be one of the ways this goal could be achieved.
Implications for AISD: The results presented above are necessarily tentative since they were based on a total of only 25 children. However, if the findings of this study are further substantiated, it would appear that a literature/puppet play activity might be advantageous to young bilingual children in this school district.
FACTORS INFLUENCING CHILDREN'S CONCEPTS OF HEALTH AND ILLNESS

Abstract

Maria E. Defino, Ph.D.

Participating Schools: Wooten Elementary

Description of Study: Healthy children and children with chronic illnesses were invited to participate in a study designed to increase our understanding of the ways in which children make sense of health and illness. The participants were interviewed with the Concepts of Illness (CI) protocol (healthy children were interviewed twice), and responded to the Nowicki-Strickland Internal-External Locus of Control (NSIE) measure. In this manner it was possible to assess the test-retest reliability of the CI protocol, in addition to indicating whether or not relationships exist between children's health, personality factors, and conceptualizations of health and illness.

Description of Results: Several findings resulted from this research. First, the CI protocol was characterized by high test-retest reliability (r = 0.95, p < .001); this reflected the 100% rate of agreement between independent readers of children's interview protocols. Second, there was no substantial relationship between children's health status (e.g., healthy versus having a chronic illness) and the ways in which children in the study made sense of health and illness, even though those with chronic illnesses seemed to use more medical jargon in their explanations. Third, there was a significant negative correlation (r = -.36, p < .05) between children's NSIE scores and their CI protocol scores.

Implications of Results: The CI protocol appears to be worthy of continued use in research, due to its satisfactory measurement properties. Three areas needing further investigation are: 1) the role of locus of control as a moderator in children's concepts of health and illness; 2) the utility of the CI protocol in medical/applied settings; and 3) the discriminant validity of the CI protocol.

Implications for AISD: Student learning in AISD does not seem to have been influenced in any way by this study; all interview sessions were held during noninstructional time outside of the school building. Children did report having enjoyed the sessions, however.
Social, Psychological, and Cognitive Predictors of Social and Psychological Adjustment in Adolescents

Abstract

Walter E. Jordan-Davis

Participating Schools: None. This study will utilize data contained on the Office of Research and Evaluation research files (Youth Needs Survey File).

Description of Study: The objective of this proposed study is to construct a prediction model that aids in the understanding of adolescents' (junior and senior high school students) and the social, psychological and cognitive factors which influence their social and psychological adjustment. This study will examine the relationship of adolescents with significant others (such as parents, peers, and teachers), along with socio-demographic and family characteristics to determine the casual process of adjustment. Because the study is based on an existing data base, no student or teacher time is required.

Description of Results: Results of the study should support the following hypotheses: 1) adolescents respond to the environment on the basis of the cognitions or meanings that elements of the environment have for them as individuals; 2) societal/cultural meanings are modified through individual interpretation of the interaction between socio-demographic psychological, and environmental constraints. Path analysis techniques will be used to examine these relationships.

Implications of Results: The purpose of this proposed paper is to investigate the structure of adolescents' perceptions about themselves and others. A central concern of this investigation will be to provide a useful framework that can contribute directly to the understanding of the cognitive states and processes which mediate adolescents'; sociopsychological adjustment. The study will employ a socioecological framework to explore the interaction of social, psychological, and cognitive structures affecting adolescents. The contributions of this study will include a clearer understanding of the cognitive processes mediating various types of school-related social experiences.

Implications for AISD: The results of this study should assist the District in working towards the primary prevention of the social and psychological problems confronting adolescents. This study will provide the District with a more complete understanding of students' interactions between a school's social-environmental setting and of students' individual cognitive adaptation to that environment. Such understanding could help the District in refining student assistance programs.
EFFECTS OF THE IMPLEMENTATION OF A MINIMUM COMPETENCY TESTING PROGRAM ON THE ACQUISITION OF MATHEMATICS SKILLS

Abstract

Evangeline Lucia Mangino, Ph.D.

Participating Schools: The data used in this study was obtained from the 1979, 1981, and 1983 Sequential Tests of Educational Progress (STEP) files. Students selected were those tested with form 2A of the STEP, regardless of which school they attended. Because the study used computer files, there were no schools participating directly.

Description of study: The study investigated the effect of the implementation of the Texas Assessment of Basic Skills (TABS) on the rate of acquisition of basic and high-level mathematics skills of a sample of ninth grade students in the Austin Independent School District.

The mathematics items from the STEP were used to measure basic and high-level skills of students tested in the ninth grade in 1979 (one year before the implementation of the TABS), 1981, and 1983 (one and three years after the state-mandated testing program began). Previous achievement (eighth-grade average) was used as a covariate in the data analyses.

Separate regression analysis were conducted for basic skills and high-level skills. Seven regression models were used to test linearity of the regression lines, the difference between intercepts, and the interaction between previous achievement and year tested.

Description of Results: The results indicate a significant increase in acquisition of basic skills between 1979 and 1981, but no significant change between 1981 and 1983. The increase was constant at all levels of previous achievement.

A significant interaction between year tested and previous achievement was found for high-level skills, such that low-achieving and high-achieving students were affected.
differently by the introduction of the minimum competency test.

Low achieving students (i.e., "C" and "D" students) showed a dramatic increase in the acquisition of high-level skills between 1979 and 1983. No change was detected from 1979 to 1981. High achievers ("A" students) showed a slight decline in the acquisition of high-level skills from 1979 to 1983.

Implication of Results: A strong emphasis on basic skills is helpful in increasing the rate of acquisition of basic skills of all students but if caution is not exercised by teachers, high achievers may suffer a detrimental decline on the rate of acquisition of high level skills.

Implications for AISD: Teachers and administrators need to be advised of the results of this study, to encourage them to pay particular attention to the needs of high achievers at the same time that they are covering the skills included in the minimum competency testing program. Using basic skills or essential elements as the sole or primary guide for developing curriculum restricts the scope to the detriment of high-achieving students.
ETHICAL ISSUES CONFRONTING NURSES EMPLOYED IN HOSPITALS, PUBLIC SCHOOLS, AND COMMUNITY HEALTH AGENCIES

Abstract

Marie B. Andrews, R.N., M.S.

Participating Schools: The population for this study included all nurses employed in the Independent School Districts of Austin, Houston, Dallas, Fort Worth, and San Antonio; all nurses employed in the county and city health departments and the Visiting Nurse Associations of those five cities; and all nurses who were members of the Texas Nurses Association in Districts 3, 4, 5, 8, and 9 who were employed in hospitals.

Description of Study: A Delphi respondent panel composed of eighteen nurses employed by hospitals, public schools, and community health agencies compiled a list of fifty-five ethical dilemmas. Two scales were attached to the list of dilemmas. The list was sent to the population identified above. The nurses used the two scales to indicate the frequency with which they encountered the dilemmas in their nursing practice, and the importance which they attached to the dilemmas.

Description of Results: Questionnaires were completed and returned by 219 hospital nurses, 221 public school nurses, and 247 community health nurses, for a total of 687 responses. Analysis of the data is in progress.

Implications of Results: This study will provide a basis for the development of programs and courses to help nurses acquire skills in resolving ethical dilemmas by identifying those dilemmas most likely to be encountered in three specific areas of nursing practice. Specific course content may be planned to teach nurses problem-solving and ethical decision-making techniques, with emphasis upon those dilemmas which nurses can realistically expect to encounter.

Implications for AISD: This study is not directly related to student education in the public schools. Indirectly, it could eventually benefit students as more school nurses become more aware of ethical dilemmas, and develop skills in dealing with those dilemmas.
TEACHING AND LEARNING:
PERSONAL CONSTRUCTS OF THE PARTICIPANTS

Abstract
Deborah Muscella

Participating Schools: Jerry Joslin Elementary School

Description of Study: The purpose of the study was: 1) to compare the beliefs about school learning among kindergarten children, their parents, and teachers; 2) to examine the influence of the classroom learning environment on changes in the beliefs which kindergarten children had about school learning; and 3) to compare the beliefs of lower and middle income minority and non-minority children. Pictorial stimuli of classroom learning events were used to elicit personal constructs and preference rank order of classroom learning events.

Description of Results: All participants--parents, teachers, and children--viewed the classroom learning environment in two dimensions: participant configuration and learning activities. Participant configuration was delineated into large and small groups, and learning activities were dichotomized into teacher and child-structured activities. Comparisons of parents, teachers, and children indicated that the adults preferred large group activities of the participant configuration dimension; whereas, children had strong preferences for the child-directed activities of the learning activities dimension. Comparisons of the beliefs of teachers and children over a four month period indicated that children consistently preferred the participant configuration of small groups, while teachers preferred teacher-directed activities in the beginning of the school year but the child-structured learning activities dimension by the second semester. Children from middle income families preferred learning events which were child-structured. Children from low income and Hispanic families viewed the participant configuration as being more important; however, children from low income families preferred small group activities of this dimension, while Hispanic children, regardless of economic group, showed preferences for the large group activities of the participant configuration dimension.

Implication of Results: Parents, children, and teachers attended differently to the structure of learning activities and group size. Since children preferred small group settings in which they could provide input into the activity, large group, teacher-structured tasks, those classroom learning dimensions preferred by adults, may be a less effective learning vehicle than small group learning. Since the size of the group had considerable but different importance for both low income and Hispanic students sensitivity and flexibility to instructional group size is an important factor in designing the curriculum. Child-structured activities, a highly salient learning dimension for children, suggest that learning centers and structured play settings are an important part of the curriculum for young children.

Implications for AISD: The study was exploratory and included eight children from the AISD school and 24 children from two other school districts; therefore, generalizability of the results is limited. Considering this caveat, it appears that the current structure of the AISD kindergarten curriculum, with an emphasis on independent learning, small group structure, and learning center activities needs to be fostered and encouraged. In addition, awareness of differences among varying income and ethnic groups preferences for classroom learning activities argues for flexibility in both group structure and learning activities.
A COMPREHENSIVE INVESTIGATION OF
PROCESS-OUTCOME RELATIONSHIPS IN PHYSICAL EDUCATION

Abstract

Stephen Silverman, Ed.D.

Participating Schools: Burnet Junior High School

Description of Study: The purpose of this study is to describe the relationships between teacher and student process variables and achievement in a physical education setting. In addition, the relationship of selected presage and context variables with achievement will be determined. Students were pretested on two volleyball skills, teachers instructed for seven class sessions, and then students were posttested. All instruction was videotaped and students were identified by a numbered pinnie for subsequent coding of process variables. The data from the two classes at Burnet Junior High School is being combined with data from eight classes at a school outside AISD.

Description of Results: Since this data collection occurred late in the academic year results are not available at this time. Pretest, posttest, teacher and student process data currently are being added to a data set with data from other classes. It is anticipated that results of the relationships of residual achievement with presage and context variables will be available in the next few weeks. An initial process-outcome study investigating the relationship of the type and quality of practice trials with achievement has begun and results should be available in the Fall. (Approximately 800 hours of videotape coding for process variables is necessary to complete this study.) Other studies will be completed off the videotape data base subsequent to completion of the practice trial study.

Implications of Results: Although results are not available at this time, the completion of the school based data collection indicates that a controlled large-scale study of instructional effectiveness in physical education can occur in an ecologically valid environment.

Implications for AISD: As results become available the information about student practice and motor skill learning should help teachers plan for instruction in physical education so that learning is enhanced within the bounds of the school physical education setting.
HIGH SCHOOL PRINCIPALS: AN ANALYSIS OF THEIR PREPARATION AND INVOLVEMENT IN FACILITATING THE IMPLEMENTATION OF AN INSTRUCTIONAL PROJECT

Abstract

Ian Malcolm Penny, B.A., DipT.

Participating Schools: The participating high schools were Travis, McCallum, Lanier, Anderson, Crockett, Johnston, Lyndon Baines Johnson, and Reagan.

Description of Study: To ascertain high school principals' perceptions of the adequacy of the district preparation and ongoing support for their role in facilitating the adoption of an instructional program (BEST) in schools.

Description of Results: Principals highlighted the value of the preparation and conduct of workshops for trainers and the support material produced for the project. They also made suggestions to improve the program which included; the importance of using examples in workshops at an appropriate level for participants; avoiding development activities just before the commencement of the school year; detailing the responsibilities for the implementation of the project at all levels; more training for principals and assistant principals in coaching, monitoring and feedback skills; and approaching the Local Education Center to learn of ways in which they can support and complement the project. The concerns expressed in the study through the Change Facilitator Stages of Concern Questionnaire indicated that several principals had individual concerns for issues other than the project itself, which if not satisfied may further reduce their involvement.

Implications of Results: The high school principals clearly identified their needs and concerns about the project in the interviews and through the Change Facilitators Stages of Concern Questionnaire. This questionnaire was quite successful in ascertaining individual concerns, revealing individual concerns profiles which could greatly assist an assessment of the principals' developmental needs. Some profiles implied concerns which if not satisfied could further restrict the principals involvement in the project and reduce the level of adoption of the project by teachers. Most principals recognized they had a responsibility for the management of the project, which stimulated them to review their personal skills to do this. However few principals were actively involved in seeking individual development. There was little indication that the project had at this point changed principals' priorities or objectives about their role. Most principals appeared to be waiting for a further district initiative especially concerning role clarification and the development of coaching, monitoring and feedback skills.

Implications for AISD: The study has indicated that the district should explore ways of actively monitoring the responses of high school principals to the project, taking account of their concerns to help maximize their involvement. The study did not reveal that district
personnel were currently performing this role, which may indicate that the district lacks personnel with such skills. If the district wishes to have the project fully adopted by schools then it is believed that appropriate personnel should be more actively working with some principals to monitor, support and train them for their role. This may be achieved using a person actively involved with the project as a key district facilitator or by training several persons to accomplish this role.
PREPARING FOR THE WORLD OF WORK:  
A STUDY OF LEARNING DISABLED STUDENTS

Abstract

Susan Stephens Jorjorian, M.A.

Participating Schools: Anderson, Crockett, Reagan, & Travis high Schools plus five schools from other districts.

Description of Study: The purpose of this investigation was to examine the performance of students who had different levels of work experience and vocational education on measures of occupational aptitude, interest, and knowledge. The sample consisted of 84 special education students identified as learning disabled and 64 regular education students who had no reported disabilities. The OASIS Aptitude Survey and Interest Schedule, which measure 6 specific aptitudes and 12 interest areas, and the Occupational knowledge subtest of the Test of Practical Knowledge were administered. Students also completed a questionnaire about work experience and vocational education coursework. School records were read for vocational education and demographic data.

Description of Results: Two-way and three-way analysis of variance were used to analyze the data. Results of the analyses indicate that the special education group performed significantly lower than the regular education group on measures of aptitude and occupational knowledge. Students in both regular and special education who had employment experience were found to have significantly higher means on measures of aptitude and occupational knowledge than groups with no employment experience. The group of special education students who had courses in regular education vocational skills training demonstrated more clearly defined interests and greater occupational knowledge than students who had special education pre-vocational and on-the-job training.

Implication of Results: Learning disabled and non-disabled adolescents who have had employment experience appear to be better prepared for the world of work than their peers who have not been employed. Special education students who have had specific vocational skills training show greater readiness for work than those who have had only special education vocational courses.

Implications for AISD: The nature of the study was explorative, and the results imply directions for further research and evaluation, rather than suggestions for educational programming practices. In light of the results, a program evaluation of the effectiveness of various vocational education options for learning disabled students would be warranted. The findings on employment experience imply that students who have held a job while in high school may be better prepared for the world of work than students who have no employment experience.
THE RELATIONSHIP BETWEEN ESL LANGUAGE LEARNING ATTITUDES AND LINGUISTIC ATTAINMENT AMONG RECENT IMMIGRANT, NATIVE SPANISH-SPEAKING HIGH SCHOOL STUDENTS

Abstract

Daniel J. Livesey

Participating Schools: Travis High School (and one other school outside the district)

Description of the Study: The purpose of the present study was to determine the degree of relationship between attitudes toward ESL learning behaviors as measured through a specially developed questionnaire and linguistic attainment as measured by standardized tests and videotaped samples of free speech. This study attempts to predict language learning performance as other major researchers, including Lambert, Gardner and Oiler, have from attitude data since it has been found that attitudes operate independently of aptitude to influence performance. This study departs from previous approaches in that it benefits from Ajzen and Fishbein's research based Theory of Reasoned Action which calls for assessing only salient attitudes about behaviors as opposed to attitudes about objects not known to be salient and predicting behaviors, in this case, language learning behaviors, from data about intentions to engage in such behaviors. Predicting from data on intentions to engage in learning behaviors and not from actitudinal data has advantages since much can intervene between the formation of an attitude and subsequent behaviors such as special circumstances which cause individuals to act inconsistently with previously held attitudes. To check the prediction abilities of both types of instruments, the criterion behaviors were predicted from both. The learning behaviors upon which the students focus in the attitude questionnaire are ones about which they have strong feelings as assessed through a separate survey of salient learning attitudes which are attitudes held to be uppermost on the minds of the students. Data from such attitude questionnaires insure greater relationship with subsequent behavioral intentions and behaviors than that which could have been expected in studies conducted previous to this one. Although not called for in the Theory of Reasoned Action, the results of the attitude questionnaire were predicted from data on nonverbal behavior variables (defined by Mehrabian and Eggen) obtained by videotaping classroom instruction.

Description of the Results: Preliminary analyses show a positive, near linear relationship between the responses on the attitude
questionnaire and the language and reading subtests of the standardized achievement test used in the schools. A similar relationship was also found between the proficiency scores derived of the end of year language dominance tests and the responses on the attitude questionnaire. Preliminary analysis of the videotaped free speech samples indicate that some students were more capable of expressing thoughts than would be expected given standardized test score outcomes. In general, the more fluent students showed more positive attitudes toward engaging in the learning behaviors than those deemed less proficient. Similar, albeit stronger positive relationships were found between the intentions scales and the criterion measures. Certain nonverbal behavioral variables were found to correlate with the scores obtained from the attitude questionnaires.

Implications of Results: For research purposes, the results show that prediction of linguistic performance from attitude data gathered in a way consistent with the Theory of Reasoned Action has advantages over previous approaches to attitude assessment and performance prediction. Since linguistic attainment is highly related to attitudes toward the learning behaviors involved and intentions to engage in those behaviors, instructional staff and school counselors should be aware of those students who may have particularly ineffective attitudinal sets. Students whose attitudes are not strongly conducive to engaging in the learning behaviors necessary for appreciable progress in learning English need to be involved in an affective type intervention for the purpose of causing their learning attitudes to change in a positive direction since greater achievement can subsequently be expected. Certain nonverbal behaviors such as posture and head movements are immediate cues about existing attitudes toward the learning behaviors for the instructor to take into account while teaching.

Implications for AISD: Teachers involved in ESL or foreign language instruction can learn much about their students attitudes toward the learning behaviors they will be called upon to engage in by assessing salient learning attitudes and administering an attitude questionnaire based upon the results of the salient attitude survey. Doing this early on in the school year makes it possible to identify students needing a more positive attitude set so that an intervention can be planned for early on in the school year while increasing the chances for appreciable language learning progress. Concerning nonverbal behavior, certain postures and types of physical movements serve as immediate feedback for the instructor about the attitudes students have about engaging in ongoing learning behaviors which the teacher can consider while teaching or when planning instruction.
Effects of the Mural Method of Integrated Imagery on Recall, Retention, and Transfer

Abstract
Marcia H. Lind, Ph. D.

Participating school: Hill Elementary

Description of study: The purpose of this study was to determine the effectiveness of a particular arrangement of multiple integrated imagery known as the "mural method," when used by elementary-aged students as a strategy for remembering information about the geographic regions of Texas. Comparisons of immediate recall, long-term retention, and transfer of learned strategies to new learning situations were made among three randomly assigned groups of fourth-graders: Group A—those who studied texts supplemented by experimenter-provided mural arrangements of figures representing key facts and access mnemonics, Group B—those who studied the same texts and were instructed in the technique of creating their own murals containing figures representing key facts and access mnemonics, and Group C—those who studied the identical texts supplemented with separate pictures of the same figures, but with no access mnemonics.

Description of results: Among-group differences were found at all three levels of recall. On ten-item posttests administered immediately following three sessions, Group A (those using experimenter-provided murals) obtained a mean score of 9.25, compared to mean scores of 8.95 by Group B (those being trained to create murals), and 8.19 for Group C (those using no imagery). More striking differences occurred among the treatment groups when all subjects were tested for retention after an interim of eleven days, including a holiday from school. The mean scores on the twenty-item retention test ranged from 14.2 for Group A to 6.36 for Group C, with Group B achieving a mean score of 10.4. The group using the mural method of integrated imagery more than doubled the number of correct answers given by the group studying with an approach comparable to regular textbook-type instruction (Group C). After all groups were presented new material at the same time and asked to study it for a given amount of time, the members of both imagery groups (Groups A and B) utilized the mural method without prompting to assist their studying. Those who had simply observed modeling of the technique (Group A) had a mean score of 13.2, more than those who had been instructed in the technique (Group B), whose mean score was 10.2, and those who studied without imagery (Group C), whose mean score was 8.8.

Implications of results: When intermediate-aged children are presented factual information and expected to remember it, supplementing the text with a teacher-made mural, containing meaningfully arranged
figures representing the key facts and an access mnemonic, seems to bring about both substantially greater immediate recall and long-term retention of these facts than textual supplements containing separate figures and no access mnemonic. Students taught to create their own murals of related figures and mnemonics also appear to retain information better than their peers who supplement the text with separate, unrelated figures and no imagery strategy. Students who have seen the mural method of integrated imagery modeled appear able to transfer the strategy to a new learning situation as well as, if not better than, students who have been instructed in generating their own imagery. Therefore, the conclusion might be made that time spent in the instruction of students in imagery construction might be replaced by good modeling of the strategy by a teacher using previously prepared murals. The mural method can be used by a teacher to supplement most textual materials, and it can be taught and tested within normal classroom situations.

Implications for AISD: Teachers can be taught the technique of creating murals to supplement textual materials from many subject areas, especially in the area of the social sciences. They also can be trained to utilize these murals effectively to bring about substantial student retention of the required textual information presented. Murals made for specific units of study can be reused many times. They are inexpensive and easy to store. Once teachers learn the process of the mural method of multiple integrated imagery, they should be able to utilize it to assist student recall of factual information in many areas, perhaps bringing about gains in scores on standardized tests, as well as assisting students in "learning how to learn." The mural method of multiple integrated imagery is a viable strategy teachers can utilize to improve student learning of factual information.
A Cognitive Enrichment Approach to Teaching Mathematical Problem Solving

Abstract

Katherine H. Kopp, Ph.D. and Carol H. Bell, M.S.

Participating Schools: Maplewood Elementary and Josephine Houston Elementary.

Description of Study: The purpose of the present study was to determine the effectiveness of an approach to improve student's performance in mathematical problem solving. Teachers who volunteered to participate in the project were trained to implement a cognitive enrichment approach to teaching mathematical problem solving. The teachers studied 15 prerequisites to thinking skills (cognitive functions) which they taught students to utilize while solving mathematical problems. The teachers were given 60 mathematical word problems, four for each of 15 cognitive functions. In addition, they were given 15 cognitive enrichment lessons which were to be used to teach each cognitive function. The teachers were given mathematical word problems appropriate to their grade level four days a week for 15 weeks. They were expected to focus on one cognitive function per week, teaching a cognitive enrichment lesson along with a given word problem four days a week. Sixty-seven students from one second grade, two fifth and two sixth grade classes at Maplewood Elementary School participated in the cognitive enrichment program. Thirty-three students from three classes of the same grade levels from Josephine Houston Elementary School served as the control for the study. These students were taught the same mathematical word problems as the experimental group. They did not receive the cognitive enrichment lessons.

Description of Results: Teachers participating in the experimental group made many favorable comments about the approach. Their comments focused on changes in student problem solving behavior which were readily observable in the classroom. In addition, the teachers stated that they found the training insightful and appropriate for teaching problem solving. They implemented one cognitive function lesson for each of fifteen cognitive functions and presented most of the word problems. Teachers of control group classes implemented the word problems on a regular basis as well.

An analysis of demographic data on control and experimental subjects reflected numerous differences between the two groups. There were fifty percent fewer subjects in the control group. Fifty percent of the experimental group subjects were black to 18 percent of the control group subjects. In turn, forty-five percent of control group subjects were Hispanic to 17 percent of experimental group subjects. Forty-nine percent of experimental group subjects were considered to be from low income families based on qualifications for the free school program. Only 36 percent of the control subjects were in this category.
Students' subtest scores for mathematical problem solving were analyzed from Spring 1985 and Spring, 1986 administrations of the Iowa Test of Basic Skills. The gain scores for both experimental and control classes reflected student improvement in every class with the exception of the sixth grade control class. Neither the experimental nor the control classes varied significantly for pre and post percentile scores as measured by the Wilcoxin Matched Pairs Signed Ranks test, except for the second grade control class. When all experimental students were compared to all control students, no significant difference in gain scores was found.

Implications of Results: The major implication of the results suggests that the question of the effectiveness of this approach to teaching problem solving needs to be investigated further for several reasons. First, the teachers were enthusiastic about the approach and felt they observed changes not clearly discernible from the data even though almost all groups showed improvement. In fact, a post analysis of the test utilized to study changes in problem solving proved to be assessing only a small portion of skills taught through the intervention procedure. Second, the control group received a part of the treatment which may prove to be the important variable for improvement in problem solving performance. Namely, the teachers in both groups spent five to ten minutes several times a week teaching students to solve word problems. The significant difference in the experimental intervention may have been detected to a point that the effects could not be assessed. Teachers were supposed to have been given four cognitive functions lessons for each of their four problems covering five functions. Instead, they were given one lesson for all four problems and asked to review the given function each day.

Therefore, this study should be replicated with specific modifications including the following: 1) three groups of subjects where one group implements the cognitive approach with word problems, a second group implements the word problems only, and a third group implements the traditional math program, 2) teachers in the first experimental group should be given a cognitive function lesson for every word problem, and 3) another assessment device should be utilized along with the ITBS that focuses on all problem solving skills being taught.

Implications for AISD: Students in this school system as well as many others are not making needed progress in learning to solve mathematical problems. Cognitive education approaches are proving to be effective in helping students learn generic problem solving skills. The theory behind the approach presented in this study has been applied to an impressive number of situations in which it has been proven empirically to be an effective approach. It is very important for the future of Austin's children that every effort be made to properly investigate potentially successful interventions as they are applied to mathematical problem solving.
U.S.-Mexico Family Project (K Grade Students)

Abstract

Manuel Ramirez III, Ph.D. and Maurice Korman, Ph.D.

Plans for this study were still under development at the time this publication appeared.
DEVELOPMENT OF TEACHING STRATEGIES FOR USE WITH LIMITED ENGLISH PROFICIENT CHILDREN WHO ARE RECEIVING SERVICES FOR LD OR MILD MR: YEARS II AND III, CLASSROOM OBSERVATION AND TEACHER COLLABORATION PHASE

Abstract

Ann C. Willig, Ph.D. and Alba Ortiz, Ph.D.
Handicapped Minority Research Institute
The University of Texas

Participating Schools: Ridgetop Elementary, Ortega Elementary, Sanchez Elementary, and others to be selected.

Description of Study: The major goal of this four-year study is the development and testing of modules to train both bilingual and monolingual Special Education teachers in the most effective intervention strategies to use with LD and EMR children who are Limited English Proficient. In order to ensure that the intervention strategies included in the final modules will be useful for teachers and will prove to be effective in the classroom, the modules will be based on active collaboration with classroom teachers and will be developed over a four-year period. Year I included preparatory and pilot activities. Year II, currently under way, is an observational year designed to document types of teaching strategies currently utilized and to identify practices which hold promise for the optimization of instruction for LEP students. Special Education teachers are being observed, interviewed, and often videotaped as part of this process. In Year III, a select group of teachers will collaborate with researchers in training module development. The teacher/researcher teams will refine suggested practices and determine their apparent effectiveness and the feasibility of their use through continuous trials, guided by mutual feedback and discussion. Year IV will include final module development and a formal study of the effectiveness of training uninitiated teachers using these modules. Teachers' utilization of the training as well as the progress of their students will be examined.

Description of Results: Year II of the study was initiated in AISD in April, 1986 and will continue in the fall of 1986. Results for dissemination will be in the form of tested teacher training modules which have a projected completion date in 1988.

Implications of Results: The completed modules will be useful for inservice training of both bilingual and monolingual special education teachers who serve Limited English Proficient children. It is expected that the modules will orient teachers to specific ways in which they can incorporate language development activities into group instruction while building upon individual bilingual children's specific levels of language proficiency.

Implications for AISD: AISD teachers who participate in the project will have opportunities to engage in mutual feedback with researchers for the purpose of improving instruction for their LEP students. Upon completion of the project, training modules will be made available to AISD personnel.
A Speech Discrimination Test for Spanish-speaking Hearing-Impaired Children

Abstract
Frederick N. Martin, Ph.D and Pamela K. Burda, B.S.

PARTICIPATING SCHOOLS
The following schools have been contacted, and are willing to participate:

* AISD Regional Deaf Program
* Allison Elementary
* Govalle Elementary
* Brooke Elementary

DESCRIPTION OF STUDY
This study involves a picture-pointing speech discrimination test for Spanish-speaking hearing-impaired children that can be administered by non-Spanish-speaking audiologists. Twenty-five bisyllabic words are recorded on a two-tract audio tape. This allows the words to be delivered to the child in Spanish and to the audiologist in English. Finally, a score is derived by subtracting four percentage points for each word the child misses. This score will reflect the child's ability to discriminate speech in his/her primary language.

DESCRIPTION OF RESULTS
No data have been obtained at the present time.

IMPLICATIONS OF RESULTS
N/A

IMPLICATIONS FOR AISD
N/A
Individual Differences in Comprehension Strategies During and After an Encounter with Difficult Text

Abstract

Steve Rholes, Ph.D. and Ellen Gagne, Ph.D.

Participating Schools: Undetermined at the present time.

Description of Study: There are two phases to the study. The first phase involves administering two personality measures (a total of thirty items) to 100-200 fifth and sixth graders. Scores on these measures will be used to identify 40 students who fall into extreme groups for further study. The two groups to be studied further have been referred to as "helpless-" versus "mastery-oriented." Helpless students tend to attribute failure to low ability and tend to give up rather easily. Mastery-oriented students tend to attribute failure to things other than low ability (such as low effort or too difficult a task) and tend to try hard when things get tough. Previous research has shown that helpless- versus mastery-orientation is unrelated to ability or past success child. Capable students with a helpless-orientation may be wasting a good deal of their potential.

The second phase of the study involves a 2 X 2 design with Helpless versus Mastery being one factor and Confusing Initial Paragraph versus No Confusing Initial Paragraph being the other factor. Students will work individually with a researcher on a comprehension lesson. The topic of the lesson is some basic principles of psychology, including modeling and the principle of reinforcement. For half of the students an early part of the reading selection is written in a vague manner, making it difficult to understand, while for half, this part is clear. For all students, the rest of the selection is clear, informative, and interesting. Students selected for this phase of the study will "think aloud" which means they will read aloud and also say what thoughts are going through their mind as they read. The dependent variables are 1) thoughts while reading, and 2) reading comprehension scores for the part of the passage that follows the difficult part.

Anticipated Contribution to the Field: Research on motivation and its interaction with cognitive processes during learning is very active right now. However, little work has been done with elementary school students to find out their cognitive processes following a difficult learning task. If these can be described, successful strategies for dealing with difficult material can then be taught to students who don't use such strategies.

Another contribution this study will make is in assessing the potential of a personality approach to motivation. The personality measures we are using look quite promising as tools for identification of students who may have motivation problems.

Potential Implications for AISD: FIRST PHASE: We can make students'
scores on the motivation tests available to teachers along with a written description that should assist in the interpretation of these scores. Basically, these scores would help teachers identify students who may have a tendency to be easily discouraged by failure and who therefore may need extra encouragement. We would be happy to provide teachers with descriptions of interventions that have been successful in moving helpless students to become more mastery-oriented or to conduct an interservice workshop on this general topic. We could also, if this fits in the a curriculum area for fifth and sixth graders, discuss students' scores with them and what they mean, emphasizing motivational tendencies and useful strategies for dealing with failure experiences.

SECOND PHASE: Students selected for the reading comprehension part of the study would receive instruction in how to "think aloud" while reading and would then practice doing this. Thinking aloud while reading can be used to help students become more aware of their own comprehension processes and thus may help them become better at monitoring their own comprehension. The researchers would give students positive feedback on any type of useful comprehension process that was revealed. Finally, in addition to learning something about their own comprehension processes, students will learn a little about some basic principles of psychology.
The Effects of Visual Recall Questions During Prewriting on the Production of Descriptive Language in a Writing Task by Secondary Students

Abstract

T. R. Vannatta

Participating Schools: Crockett High School

Description of Study: The purpose of the present study was to determine: (1) if having students use a visual recall strategy in prewriting would have a measurable effect on the production of descriptive language; (2) if students will spontaneously use the visual recall without a cue in a second writing sample; (3) if students who spontaneously use the visual recall strategy produce better descriptive language when they are compared to other students who do not use the visual recall strategy.

Description of Results: Very preliminary measurements of comparisons of the number of adjectives used by the control group and treatment group (visual recall strategy) indicate that there was some experimental effect created. Ratings by independent raters are to follow. All the measurements will have to be completed before any results can be arrived at.

Implications of Results: If the preliminary findings are verified by the final results of the analysis, the implication of the study is that visual recall strategies should become integral to the prewriting for descriptive essay tasks. The classroom implications could be (pending final results) that mental strategies, like recalling a series of visual details before writing, cannot be assumed to be automatic and should be an active part of prewriting activities.

Implications for AISD: Since only two classes are involved and final analysis is not complete, the results of the study can only be
cautiously generalized. If the final results follow the preliminary findings, the study suggests that visual recall strategies could be used effectively to teach descriptive writing skills to secondary students.
Single Parent/Homemaker and Wage Earner: Techniques for Managing Dual Roles

Abstract

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Participating Schools: Travis High School
Johnston High School
Teenage Parent Program

Description of Study: The purpose of this study was to examine the lifestyles of teen and adult custodial single parents. The subjects completed a questionnaire which addressed the following areas: (a) satisfaction with ability to manage personal, work, and parental responsibilities; (b) perceived levels of stress in work and home settings; (c) adequacy and dependability of sources of income; and (d) satisfaction with child care arrangements. The questionnaire was administered to teen single parents (ages 14 to 19) who were enrolled in high school parent programs in urban areas throughout Texas. Adult respondents were obtained through community-based programs in the same cities. There were approximately equal numbers of teens and adults in the sample of 152 subjects. Over 80 percent of the teens and their child(ren) lived with relatives. Only 20 percent of the adult single parents and their child(ren) lived with relatives or other adults. Fifty percent of the teens were black, thirty percent were white, and twenty percent were Hispanic. There were larger percentages of white and Hispanic respondents in the adult group (approximately 40 percent from each of these two ethnic groups). Twenty percent of the adult sample was black.

Description of Results: Preliminary findings indicated that both the teen and adult groups were dissatisfied with their ability to manage aspects of their personal lives, money, jobs, and their relationships with and parental responsibilities to their child(ren). Dating and establishing personal friendships were sources of dissatisfaction for respondents in both age groups. Feeling good about self also was a major problem cited by both groups. Both the adults and teens said they had difficulty in managing money. The teens indicated greater dissatisfaction with their ability to find a suitable job (60 percent of the teens were employed part-time), and the adults were more dissatisfied with their ability to find a job with work hours that met their needs or allowed for time off when they needed to be with their child(ren). Ninety percent of the adults were employed full-time. Defining the role of their child(ren)'s other parent was a source of concern or dissatisfaction to teens and adults alike. The teens, however, experienced greater feelings of dissatisfaction with their ability to handle conflict and relate to their own relatives and those of the other parent than did the adults, while adults were more concerned than the teens about finding adequate support systems and building relationships with their own child(ren). The adults also indicated more dissatisfaction than the teens with their ability to discipline their child(ren).
A larger proportion of the adult group (65 percent) than the teen group indicated moderate to high levels of stress in their home lives and in their work settings. Over 50 percent of the teens, however, also said they felt considerable stress in their homes. On the other hand, nearly the same proportion of the teen and adult groups (60 percent) said they were often or always satisfied with their home lives as well as their jobs.

Over two-thirds of the teens and one-third of the adults reported that their incomes were adequate to buy necessities and some additional wanted items. Fifty percent of the teens reported receiving financial support from relatives. Only 10 percent of the adults received money from relatives, but over 50 percent of them received child support income from their child(ren)'s other parent. Twice as many of the adults as teens viewed their incomes as inadequate to meet even the basic necessities. Dependability of child support income was a greater concern for adults, with 60 percent indicating that this income was undependable.

Although a variety of child care arrangements was reported by the respondents, the largest proportion of both groups (over 50 percent) had relatives caring for their children either in their own homes or elsewhere. Twenty-five percent of the teen and adult groups had placed one or more children in licensed day care centers or before/after school care programs. Satisfaction with most aspects of child care arrangements was high for both groups. Only suitability of surroundings was a concern when the child was cared for by an unlicensed caregiver in a location other than the parent's home.

Implications of Results: The teens as well as the adults apparently could be assisted by encouraging them to build personal support systems through identification of appropriate community resources and establishment of personal relationships with supportive friends and significant others. In order to assist further in stress reduction, both groups would be helped by developing management strategies that take into account the demands of the uniqueness of their roles and responsibilities as single parents as well as the typical needs of persons in their age groups.

Implications for AISD: The apparent lack of immediate concern among the teen parents regarding income adequacy and dependability suggests implications for planning educational programs to meet their needs. Teachers in teen parent programs could build on the teen parents' interests in finding suitable jobs, while emphasizing the need to prepare for and obtain the kinds of jobs which will meet financial needs dependably as family needs change. In addition, information in relation to community resources, support systems, and reducing stress through management techniques could be provided in programs for teen parents.
An Evaluation of the Art Enrichment Program Objectives- 1981-1985

Abstract

Donna vliet, B.A.

Participating Schools: 8 Junior High Schools and 7 High Schools

Description of Study: The purpose of this study is to evaluate the nine objectives of the AISD's Art Enrichment Program from 1981-1985. I have chosen the 35 students who were in the Program for at least 3 years and developed a questionnaire addressing the objectives.

Description of Results: Not available at this time.

Implications of Results: Not available at this time.

Implications for AISD: Not available at this time.

(As of June 30, 1986, 30 students have completed the questionnaire.)