
Volume 15, No. 1 Winter 2002

MID-WESTERN EDUCATIONAL RESEARCHER

• Official Publication of the Mid-Western Educational Research Association •



Teachers College of the University of Nebraska, Lincoln

On the Cover

Teachers College, established in 1908, at the University of Nebraska, Lincoln, serves 1700 undergraduates and 800 graduates each year in its departments of Curriculum and Instruction, Educational Administration, Educational Psychology, and Special Education and Communication Disorders. In addition, the college houses the Buros Institute of Mental Measurements and the Center for Instructional Innovation.

The University of Nebraska, established in 1871, is a research institution well known for its academic and athletic excellence. The city of Lincoln (population 225,000) offers the comfort and security of a college town with the entertainment and recreational facilities of a larger city. Lincoln, for example, boasts more parks per capita than any other city in the U.S. and a growing network of bike paths and nature trails.

Information for Contributors to the Mid-Western Educational Researcher

The *Mid-Western Educational Researcher* accepts research-based manuscripts that would appeal to a wide range of readers. All materials submitted for publication must conform to the language, style, and format of the *Publication Manual of the American Psychological Association*, 4th ed., 1994 (available from Order Department, American Psychological Association, P.O. Box 2710, Hyattsville, MD 20784).

Four copies of the manuscript should be submitted typed double-spaced (including quotations and references) on 8½ x 11 paper. Only words to be italicized should be underlined. Abbreviations and acronyms should be spelled out when first mentioned. Pages should be numbered consecutively, beginning with the page after the title page. Manuscripts should be less than 20 pages long. An abstract of less than 100 words should accompany the manuscript.

The manuscript will receive blind review from at least two professionals with expertise in the area of the manuscript. The author's name, affiliation, mailing address, telephone number, e-mail address (if available), should appear on the title page only. Efforts will be made to keep the review process to less than four months. The editors reserve the right to make minor changes in order to produce a concise and clear article.

The authors will be consulted if any major changes are necessary.

Manuscripts should be sent with a cover letter to:

Mary K. Bendixen-Noe, *MWER* Co-Editor
1179 University Dr., The Ohio State University at Newark, Newark, OH 43055

The *Mid-Western Educational Researcher* (ISSN 1056-3997) is published quarterly by the MidWestern Educational Research Association through The Ohio State University. The Summer issue serves as the annual meeting program. Non-profit postage paid at Columbus, Ohio, with permission of the College of Education, Daryl Siedentop, Interim Dean.
POSTMASTER: Send address change to Jean W. Pierce, Dept. EPCSE, Northern Illinois University, DeKalb, IL 60115.

MID-WESTERN EDUCATIONAL RESEARCHER

Volume 15, Number 1 Winter 2002

ISSN 1056-3997

Co-Editors

Mary K. Bendixen-Noe
*The Ohio State University,
Newark*
email: bendixen-noe.1@osu.edu

Kim Metcalf
Indiana University
email: kmetcalf@indiana.edu

Editorial Advisory Board

Louise Fleming
Ashland University

Tom Ganser
*University of Wisconsin
Whitewater*

Richard Lipka
Pittsburg State University

Jackie Rickman
Western Illinois University

Ayres D'Costa
The Ohio State University

Isadore Newman
University of Akron

Anni Stinson
*University of Wisconsin
Whitewater*

Jim Salzman
Cleveland State University

Consulting Editors

Deborah L. Bainer
*The Ohio State University,
Mansfield*

Gene A. Kramer
American Dental Association

Richard M. Smith

Layout and design

Judy E. Teska
JET Desktop Solutions

Correspondence from President

2

The Power of Data Utilization in Bringing About Systemic School Change

E. Jane Williams, Affiliation ? ? ? ?

4

2001 Conference Highlights

Robert S. Barcikowski, Ohio University

11

Invitation for Proposals for 2002 Annual Meeting

15

Small Classes in American Schools: Research, Practice, and Politics

Jeremy D. Finn, State University of New York at Buffalo

19

Emerging Trends in Teacher Education

John McIntyre, Affiliation ? ? ? ? ?

26

Writing for Publication:

Overcoming the Barriers that Block Us

Deborah Bainer Jenkins, State University of West Georgia

31

MWER Publication Address

Mary K. Bendixen-Noe
The Ohio State University, Newark
1179 University Dr.
Newark, OH 43055
Phone: (740) 366-9469
Fax: (740) 366-5047
email: bendixen-noe.1@osu.edu

MWER Subscription & MWER Membership Information

Jean W. Pierce
Dept. EPCSE
Northern Illinois University
DeKalb, IL 60115
Phone: (815) 753-8470
Fax: (815) 753-9250
email: jeanpierce@aol.com

Mid-Western Educational Research Association

EXECUTIVE COMMITTEE

2001-02

Immediate Past President

E. Jane Williams
807 Kinnear Road
The Ohio State University
Columbus, OH 43212
(614) 292-4520
williams.483@osu.edu

President

Carmen Giebelhaus
Educational Testing Services
9500 Lehr Court
Manassas, VA 20110
(703) 392-1312
drgieb@aol.com

President Elect

Robert S. Barcikowski
201 McCracken Hall
Ohio University
Athens, OH 45701
(740) 592-2982
barcikow@ohio.edu

Vice President

A. William Place
University of Dayton
3566 Strathmoor Drive
Kettering, OH 45429
jfhswwplace@ndeca.org
(937) 835-5691

Secretary

Margaret Simpson
(630) 706-3243
psimpson@keller.edu

Member-at-Large

Carole Newman
University of Akron
cnewman@uakron.edu

Vice President Elect (ex officio)

Janet Holt
Northern Illinois University
jholt@niu.edu

Executive Officer (ex officio)

Jean W. Pierce
EPCSE Department
Northern Illinois University
DeKalb, IL 60115-2867
(815) 753-8470
jeanpierce@aol.com

Historian/Archivist (ex officio)

Co-Editors (ex officio)

Mary K. Bendixen-Noe bendixen-noe.1@osu.edu
Kim K. Metcalf kmetcalf@indiana.edu

Mid-Western Educational Researcher

c/o Mary K. Bendixen-Noe
Ohio State University, Newark
1179 University Drive
Newark, OH 43055
(740) 366-9469

TO: MWERA Membership

FROM: Carmen Giebelhaus, President

SUBJECT: MWERA Annual Conference

DATE: January, 2002

On behalf of the Board of Directors, I want to extend an invitation to all members and others to attend the annual conference of Mid-West Educational Research Association, October 16-19 in Columbus, Ohio. We are very excited about the location this year and have high hopes for the success of the conference. We hope that all of you will work with the organization to make the 2002 conference a success.

As in the past, the MWERA web site (<http://etra.cedu.niu.edu/MWERA>) is the best and easiest way to submit proposals. Please take advantage of this opportunity. If, however, you would rather submit via paper, that process is outlined in the Call for Proposals. Either way, we hope to have a record number of submissions this year! **Submission deadline is May 1, 2002 and will not be extended this year.** Be sure that you encourage your students (both undergraduate and graduate) and colleagues to submit a proposal for consideration.

As part of our continued desire to support the professional development of beginning faculty members and graduate students and to promote new membership in the organization, this year the Board of Directors has decided to offer an added incentive. *MWERA will provide one free room night at the Great Southern Hotel during the conference to each member who brings to the 2002 conference five new member/registrants. These new members must preregister and indicate on the registration/membership form the name and institution of the sponsoring member.* The "free" room night will not be transferable. In addition, I am please to say that the Great Southern Hotel and the Columbus Visitors Bureau have provided MWERA with several "gifts" that we plan to use as "door prizes" each day of the conference.

We hope to see you at the conference. Please feel free to contact me or other members of the Board of Directors if you have questions.



January 2002

Dear MWERA Members:

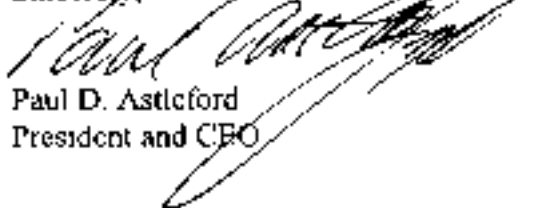
On behalf of the 930 members of the Greater Columbus Convention & Visitors Bureau, it is my pleasure to welcome the Mid-Western Educational Research Association to Columbus and the Westin Great Southern. Columbus is rapidly being discovered as the perfect destination for a wide variety of conventions, meetings and trade shows – and we're delighted that you have decided to hold your event in Columbus.

First-time visitors and those who haven't been here in awhile may be surprised at all there is to see and do in our city. In recent years, Columbus has exploded with new development, including the Nationwide Arena, home of the Columbus Blue Jackets of the National Hockey League; the adjacent Arena District, which is fast becoming one of the city's top entertainment districts; Easton Town Center, a unique shopping and entertainment district northeast of downtown; and COSI Columbus, the city's interactive science museum which recently moved to a new home on the Scioto River.

I know that you'll be busy during your stay in Columbus, but I hope you will have time to explore at least a taste of what our city has to offer. If you need information on attractions, restaurants or events, please give us a call at 800-354-4FUN or visit our Web site at www.SurpriseItsColumbus.com.

Enjoy your time in Columbus. It's a privilege for Columbus to have you here and we hope you will come back often.

Sincerely,



Paul D. Astleford
President and CEO

Greater Columbus Convention & Visitors Bureau

90 North High Street, Columbus, Ohio 43215-1014, (614) 221-6523 (800) 354-COIN (2657) Fax: 614-221-5618 www.columbuscvb.org

The Power of Data Utilization in Bringing About Systemic School Change

E. Jane Williams
Affiliation ? ? ? ?

Introduction

Dr. Mary Diaz, in her address at the 2000 MWERA Conference, described the fundamental intent of standards-based reform as,

...transformation of public education from factory-model schooling into communities of learners where all students experience a rich and challenging curriculum that holds the possibility of preparing them for the demands and opportunities of life and work in the 21st century. The intent is not only to hold all students to high standards of performance, but also to provide teachers ... with the tools, processes, opportunities, and supports that will enable them to help students across the socio-economic spectrum reach for and achieve high levels of performance according to their "multiple intelligences" (Thompson, 1999, p. 46 cited in Diaz, 2001).

Dr. Diaz' words resonated deeply with me because, for the last 6 years, I have been the Director of the Research and Evaluation Center for a project that focuses on providing teachers with the "tools, processes, opportunities, and support..." that Dr. Diaz referred to in her presentation. The data that are collected, analyzed, and reported from the project guide the ongoing workings of the project at many levels, from classroom teachers to boards of education. There is more to the change process than desire, beliefs or even dedication; we have to know whether or not we are making a real difference. That is, administrators, teachers, university trainers, **each** must analyze and use the data in order for change to move in the desired direction! Assessments with strong validity and reliability when analyzed and used will direct and guide the change process.

The change process must include creating and fostering purposeful learning communities. Senge et al. (2000) and Fullan (2001) emphasize the importance of learning communities in bringing about positive educational change and the solving of complex problems. Creating and fostering purposeful learning communities involves capacity building. Darling-Hammond, 1993, explains capacity building by first describing a new mission for education—

one that requires schools not merely to 'deliver instructional service' but to ensure that all students learn at high levels. In turn the teacher's job is no longer to 'cover the curriculum' but to enable di-

verse learners to construct their own knowledge and to develop their talents in effective and powerful ways."

She continues by stating that this new model for school reform is

one in which policy makers shift their efforts from *designing controls* intended to direct the system to *developing the capacity* of schools and teachers to be responsible for student learning and responsive to student and community needs, interests, and concerns. Capacity-building requires different policy tools and different approaches to producing, sharing, and using knowledge than those traditionally used throughout this country" [Italics in original.] (p. 754).

This new model for school reform requires a change process wherein schools use their data to build capacity. Thus, we need to create and foster learning communities to help schools build capacity.

Context for Examples

If we are to conduct evaluation that reveals the essential processes of positive change, we must look at data emerging from comprehensive approaches to solving problems. These settings offer insights. One example is the Literacy Collaborative.¹ Literacy Collaborative is a classroom-based, comprehensive school reform project designed to increase literacy achievement for all students through collaboration between the teachers/administrators in a school and a training institution. The training institution is most often a university but can also be a school district or consortium of districts. The Literacy Collaborative helps elementary schools increase literacy achievement by building the capacity of communities of teachers, and of schools; it also helps districts provide continuing professional development to their teachers locally. Capacity is built through extensive professional development, and through the coaching of literacy coordinators and classroom teachers.

Development of the primary level training program began in 1986 at The Ohio State University, with a series of teacher study groups. Formal training of primary level literacy coordinators began in 1993 with the training of literacy coordinators from 9 schools in 3 districts. By the beginning of the 2001-02 school year, the Literacy Collaborative network has grown to include 655 schools in 194 districts in 27 states. It

has also grown into three levels: the training of primary level literacy coordinators, intermediate level literacy coordinators, and trainers. This article will address only the training of the primary level literacy coordinators.

Training/Professional Development

The implementation of Literacy Collaborative includes ongoing training to expand skills in teaching, long-term professional development, as well as safety nets, which include the availability of Reading Recovery for the lowest achieving first graders. During the initial training year school-based literacy coordinators are trained to use the framework of research-based reading, writing, and word study practices. The literacy coordinator is the first person trained and he/she in turn trains the teachers at the building over the next few years. The literacy coordinator teaches children, demonstrates research-based teaching practices, provides in-class coaching, and coordinates data collection on every child's achievement. A key component to all the training is coaching. Research has shown that the most effective way for teachers to effectively retain and implement new instructional techniques is through coaching (Joyce and Showers, 1980, 1982).

In addition to the training of the literacy coordinator, the school leadership team participates in awareness sessions or a series of "team planning" sessions to increase their understanding of literacy learning and the dynamics of the project. In the process a new learning community comes into being. The leadership team learns to analyze the data documenting teaching/learning and work together toward a high quality implementation of the project, Figure 1. Throughout the project data are gathered, categorized, analyzed, and used to celebrate progress and provide direction for future change.

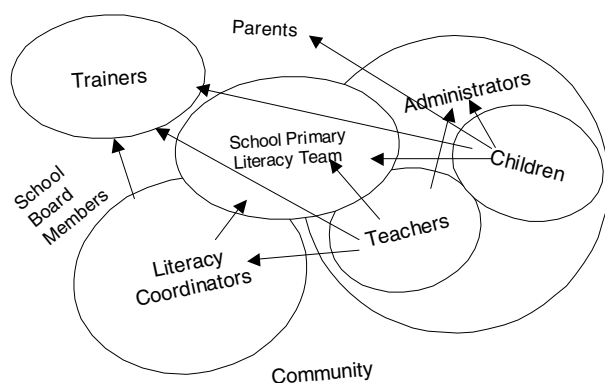


Figure 1. The use of data by members of a Literacy Collaborative learning community. Arrows indicate which members of the community are using which data. The cycle is repeated across multiple sites.

Research Design

A major goal of the Literacy Collaborative is to raise the level of literacy achievement of students in elementary

schools. The focus since 1993 has been on literacy and language learning. The Literacy Collaborative research design institutes fall-fall data collection using a variety of reading and writing assessments, including both individual and group administrations. The purposes for collecting data on each child in Literacy Collaborative schools are to:

1. Inform classroom instruction by providing systematically collected information on each child's strengths and knowledge base;
2. Provide information enabling teachers to analyze the growth of individual students over time;
3. Provide a basis for school staff to analyze improvements of the project over time; and,
4. Inform the research and development of the Literacy Collaborative (See Table 1).

Results are provided to Literacy Collaborative schools each year, enabling school officials to evaluate student learning, curricula, and teaching methodology by examining trends over time.

Table 1. Use of Data Within the Literacy Collaborative Training Model

User	Assessment	Purpose	Use to Evaluate
Teachers	Standardized Tests/ Assessments: Norm-referenced standardized test, HRSIW, Benchmark Books, Fluency and Write Name rubrics; Writing portfolio; Writing Vocabulary; Authentic & Performance assessments; Observation	Document learning; Match instruction to student; Evaluate teaching decisions;	Individual Students; Class
Literacy Coordinators	Observation; Standardized Tests	Match coaching to teachers' needs	Teachers
Principals	Standardized Tests; Demand for extra services; Retention rate; Classroom observation	Continue programs; Advise / reassign / support teachers	Programs; Literacy Coordinators; Teachers
Superintendents	Standardized Tests; State Proficiency Tests	Advise / reassign principals; Add staff	Programs; Principals
School Board	Standardized Tests; State Proficiency Tests	Advise/ reassign	Superintendent; Curricula
Community	State Proficiency Tests; Standardized Tests	Re-elect; Approve property taxes	School Board; Schools
Literacy Collaborative Trainers	Standardized Tests/ assessments; Feedback; Observation	Revise/Change the training process; Match trainer's coaching to literacy coordinator's needs; Evaluate implementation	Training model; Literacy Coordinators; Implementation

The goal of data collection in the first two years of the project is to establish a baseline for the purpose of making historical comparisons. The literacy coordinator is in training during this first year and does not begin to train and coach classroom teachers until the second year of the project. School wide change does not begin until the second year (although there is informal sharing and a few days of introductory in-service may take place). Children in the school participate in the existing instructional program during this first year. During the second year, classroom teachers gradually phase in the new approaches. Thus, fall testing in the first two years of the project forms a baseline for subsequent years.

A cohort consists of a “grade level” group of children. Teachers in the Literacy Collaborative look at each cohort of children and their achievement scores. Recognizing that the cohorts are made up of different groups of children, their goal is to look for trends over time, asking, “Are we achieving higher scores, over time, as each new cohort of children experiences our educational program?” Each year the literacy coordinator and school planning team analyze their data to prepare a report that describes the school program, goals accomplished during the year, student outcomes, and identify goals for the next year. The Literacy Collaborative requires that the reading and writing data be collected from every student in kindergarten, grade one, and grade two for the primary project. Many schools collect additional data to inform their instruction and program design.

Sample

For this article, schools were selected based on the following criteria:

1. The school has been a Literacy Collaborative school at least four years making it possible to examine results over time.
2. The school is implementing the model.
3. Implementation of the project has not been significantly interrupted. The literacy coordinator has been at the school since the beginning of his/her training. He/she has not taken a leave of absence, transferred, or resigned during this time. This literacy coordinator has been at the school 4 or more years.

Results/Findings

Yearly data collection not only provides important information for individual Literacy Collaborative schools, but also creates a database for analyzing trends across schools over time, allowing for a critical review of the training processes at the school, district, and university levels. For purposes of this article, one major question will be addressed:

Research Question

What are the patterns of change in second graders’ performance on the Gates-MacGinitie Reading Test (4th Edition) for schools that have been in the Literacy Collaborative network for at least four years?

To address this research question, two analyses will be examined. The first of the analyses will review results from Literacy Collaborative Research Reports, comparing the percentage of schools demonstrating an increase, a decrease, or no change in average NCE² performance from their initial baseline year to their fourth or fifth year in the project, as well as the aggregate average NCE gains for groups of schools in each of the reports. The second analysis will present average NCE results for children who remained in the same school from kindergarten to grade two with children who have not attended the same school from kindergarten to grade two.

Results from Literacy Collaborative Research Reports.

Over the last few years there have been an increasing percentage of schools with improving standardized test results among schools that (1) have been in the Literacy Collaborative at least four years, (2) have had the same literacy coordinator for those four years, and (3) have been implementing the model (See Table 2.) (Williams, 1998; Williams and Pinnell, 1999; Williams, Scharer, and Pinnell, 2000; Scharer, Williams, and Pinnell, 2001). As shown in Table 2, the percentage of schools showing an increase in NCE gains has gone from 58% in the 1999 report to 78% in the 2001 report, while the percentage of schools with no gain or decreasing gains from baseline to their fourth or fifth year went from a high of 29 percent in the 2000 report to 16 percent in the 2001 report (Williams, 1998; Williams and Pinnell, 1999; Williams, Scharer, and Pinnell, 2000; Scharer, Williams, and Pinnell, 2001).

Table 2.

Percentage of Schools Demonstrating Increasing, Decreasing, or No Change in Standardized Test Results in Annual Research Reports

Research Report	Percentage of Schools Demonstrating			Number of Schools
	Increasing NCE Gains	Decreasing NCE Gains	No Change	
1998	---	---	---	5*
1999	58%	25%	17%	12
2000	61%	29%	11%	38
2001	78%	16%	6%	51

*Note: Due to the small number of schools no attempt was made to generalize results regarding percentage of schools showing an increase, decrease, or no change in standardized test results. The first year for administration of the Gates-MacGinitie Reading Test was fall 1995.

In addition, aggregate results for the group of schools in each of the Research Reports show a trend of continuing improvement for second graders on reading achievement. The Gates-MacGinitie Reading Test of Total Reading for the schools in the 1998 Research Report³ rose on average from 35.70 NCEs in fall 1995 (n=221) to 43.31 NCEs in fall 1997 (n=236); the aggregate Total Reading results for schools in the 1999 Research Report⁴ rose on average from 33.34 NCEs in fall 1995 (n=302) to 39.91 NCEs in fall 1998 (n=798); aggregate results from the 2000 Research Report rose from 37.28 NCEs in fall 1995 (n=203) to 43.43 NCEs in fall 1999 (n=2472); while the aggregate average NCE results for all second grade cohorts from schools in the 2001 Research Report on Total Reading increased from 36.00 in fall 1996 (n=999) to 48.70 NCEs in fall 2000 (n= 3493). For the 2001 report, all Gates-MacGinitie Reading Test (4th Edition) results from Fall 2000 were equated to the 3rd Edition for ease of comparison purposes, unless otherwise noted.

Average NCE Performance of Children With Consistency of Instruction and Attendance from Kindergarten to Grade Two. A critical concern in many schools is that of student mobility. Students new to the schools receive only

partial exposure to new instructional methods. To determine whether consistency in instruction and attendance would make a difference in student achievement, students who were in the same school from kindergarten to second grade were compared with cohorts of students who did not attend the same school from kindergarten to second grade.

For comparisons using mobility and attendance as group characteristics while controlling for student performance on the *Hearing Sounds In Words Task* (Clay, 1993), results for all second grade students in the fall of the fourth year as a Literacy Collaborative school for each group of schools are shown in Table 3. When the average performance of students who were at the same school from kindergarten to second grade with the performance of students who were not in the same school during that entire period of time were compared, the average NCE performance was much higher for the former group. This pattern was consistent across both groups of students who attended the same school from kindergarten to second grade—those who were absent less than 20 days during the prior school year and those who were absent more than 20 days during the prior school year—when compared with students with similar attendance records who did not attend the school from kindergarten to second grade. Students who stayed in the same school and were absent less than 20 days earned the highest scores across the three classes (1996, 1997, and 1998). **More specifically, the students who were in the same school from kindergarten to second grade and were absent less than 20 days during the previous school year outperformed the other three groups (42.32 NCEs in 1998 on Total Reading; 46.67 NCEs in 1999; 51.52 NCEs in Fall 2000). It should be noted that the performance for this group of students in Fall 2000 is at or above the 50.0th NCE, which is where students are expected to be for their grade level. Students in all other groups showed similar increasing trends, however no other group had the average perfor-**

mance at or above where they were expected to be for grade level. Similar results were found for Reading Comprehension. Results for these groups of students indicate that attendance and consistency of research-based practices do make a difference. This pattern of achievement became stronger as the training of literacy coordinators and classroom teachers improved.

What Has Been Learned from the Data?

The data show that the student results, in the aggregate, are getting stronger across time. This is demonstrated in both Tables 2 and 3; scores for even the lowest group in Table 3 improved over time. Without data it is possible that the shift may have occurred in an undesired direction and the schools would not have known this had happened. During this time the following changes occurred as a result of having data available to guide actions by teachers, literacy coordinators, school administrators, trainers, and project developers.

At Ossipee Central School in NH, children at the end of kindergarten are tested using Clay's *Observation Survey* to determine who will receive additional services through their Title I program as first graders. When they first became a Literacy Collaborative School in 1996, 62% of the children qualified for Title I services at the end of kindergarten by scoring 96 points or less out of a possible 161 points. As the kindergarten teachers have implemented the Literacy Collaborative framework, the number of children who qualify for Title I services as first graders has decreased each year. During spring testing 1999, only 36% of the kindergarten children qualified for Title I services. The staff attributes this decrease in the number of students moving into first grade requiring Title I services to increased achievement during the kindergarten year as a result of implementation of the Literacy Collaborative framework" (p. 25, Williams, Scharer, and Pinnell, 2000).

Table 3.

Average NCE Performance on the Gates MacGinitie Reading Test for Second Grade Cohorts for Groups of Schools

Gates-MacGinitie Reading Test	Grade 2 Students	Attendance	Fall 1998 Results for 1996 Group of Schools			Fall 1999 Results for 1997 Group of Schools			Fall 2000 Results for 1999 Group of Schools		
			Mean	Std Dev	n	Mean	Std Dev	n	Mean	Std Dev	n
Total Reading	Not in Same School for K-2	Absent Less Than 20 Days Prior Year	39.22	22.14	95	42.40	22.76	355	48.60	NA	367
		Absent 20 or More Day Prior Year	29.75	15.94	8	28.13	24.00	47	47.30	NA	29
	In the Same School for K-2	Absent Less Than 20 Days Prior Year	42.32	21.20	273	46.67	21.87	1148	51.52	NA	1180
		Absent 20 or More Day Prior Year	14.13	16.92	15	36.80	17.51	96	42.70	NA	47

Project developers learned that it is imperative for the Literacy Team at the school to go through Team Training. It was noticed that schools that had **not** gone through Team Training oftentimes had standardized test results that were decreasing, rather than increasing. After the first few years in existence, it was found that without this component, oftentimes the teachers and/or administration did not totally understand what they were “getting into,” whether they misunderstood such things as, but not limited to, training, instructional components, the time commitment, or data collection and evaluation. Often these schools had implementation issues/concerns, such as teachers who had not made a total commitment, or staff at school(s) that had **not** really understood what they had committed to. Innovations simply were not making it into these classrooms in these schools. Some teachers were fearful of change; others were making only superficial attempts to implement the research-based practices.

At the district level administrators at times must determine why the aggregate scores are decreasing. District administrators from one district were looking at the results for several buildings and began to realize from the data that in some of their schools there were too many classes/teachers/students in the building for one literacy coordinator to be able to make an impact. The literacy coordinator’s time was spread too thin. The literacy coordinator must have enough time to coach teachers on a regular basis such that each teacher is coached for approximately 2 hours during a month. If this does not happen, teacher learning/change does not take place and in turn student learning does not occur to the desired extent.

At the university level in 1998, university trainers noticed that in many schools, students were not reading fluently and comprehension scores were not as high as they had hoped. There had to be better instruction on teaching comprehension. According to the NAEP study (Pinnell, et. al., 1995) there is a high correlation between fluent reading and comprehension as measured on standardized tests. Therefore trainers saw the need to emphasize the importance of teaching for phrased, fluent reading as a way to increase comprehension scores on standardized tests. More time was spent teaching literacy coordinators:

- How to rate fluency using the rubric in Fountas and Pinnell, 1996, p.81;
- To include a statement regarding fluency as part of the running record;
- How to teach for phrased, fluent reading across the framework for literacy lessons; and
- How to teach for comprehension strategies across the framework for literacy lessons, especially during interactive read aloud, shared reading, and guided reading lessons.

Similar changes were made in the training of spelling, phonics, and writing. Again discussions developed around

what needed to be done during training to bring about shifts in learning (both teacher and student).

In summary, the following are some changes that were made at a variety of levels in response to the extensive examination of the data.

- Administration of the standardized test during both baseline years;
- Addition of team planning to broaden and stimulate ownership at the building level;
- Modification of training to provide multiple techniques for stronger classroom management;
- Increased emphasis placed on coaching skills for literacy coordinators and time to coach;
- Increased emphasis on explicit teaching of strategies for comprehending, for example, teaching of phrased, fluent reading; and
- Increased emphasis on phonics and spelling.

When asked to describe the effects of the Literacy Collaborative on the Mather School in Boston, Massachusetts, the principal, Kim Marshall, replied:

The Literacy Collaborative took the Mather School’s lower grades by storm. As principal, I had never seen a program so quickly win over virtually every teacher. ... The program is now the instructional framework in all our classrooms from Kindergarten through Grade 3, and we are poised to begin the intermediate training next year.

The first and most important impact of the program has been on student learning. We are seeing achievement in reading and writing the likes of which we had never seen before, especially in kindergarten. Our first Literacy Collaborative cohort has not yet hit the important Massachusetts Comprehensive Assessment System (MCAS) tests in fourth grade, but we know from classroom assessments and anecdotal teacher accounts that our students are reading and writing at much higher levels than previous years.

The second impact has been on teacher collegiality and communication. Because there is now a common framework, a common language about instruction, and a common set of criteria for judging achievement, communication among teachers happens at a higher and more constructive level. Within grade-level teams and between grades, teachers are constantly comparing notes on students’ progress and sharing effective strategies.

A third impact has been a much higher level of accountability. Now that we know where every student is, and now that we have a proven set of classroom experiences that can reach all students, failure is less and less an acceptable option. Without much administrative pressure, teachers are pushing themselves harder to get their students up to the demanding grade-level goals we have set for ourselves.

A fourth impact has been on our belief in our efficacy as a school. For years, we have had slogans like “All Chil-

dren Can Learn,” but as Uri Treisman said in a recent speech, high expectations don’t mean a thing unless they are accompanied by a solid program to teach all students. With the Literacy Collaborative, we have acquired that set of tools to bring all students up to 21st century standards.

In short, nothing in my 30 years in public education has come close to the impact of this program on teaching and learning. It has given us the teaching tools, the assessments, and the professional sharing to truly reach all our students” (pp. 21-22, Williams, Scharer, and Pinnell, 2000).

Conclusion

It may be necessary for researchers to retool/update their skills in newer data analysis techniques which are now available for analyzing longitudinal data. More specifically, these include quantitative methods for addressing longitudinal data, i.e., being able to use mixed effect models for interval data and generalized estimating equations (GEE) when repeated data are binary (Horton, and Lipsitz, 1999). Without such tools it may not be possible to examine the data effectively. It was through the analysis and examination of the data by multiple constituents that this project has been able to obtain desired results.

Studies by Hay/McBer, 2000 (cited in Fullan, 2001, p. 135) and the Educational Commission of the States (2000) provide further support for the findings presented regarding K-2 students in Literacy Collaborative schools who maintained consistency in instruction and attendance. Each of these projects reinforces the importance of collecting data to support/document program effectiveness within comprehensive reform models.

But teachers cannot do it alone. It really does take a community of learners. Fullan and Hargreave (1996), note “... in a world of growing complexity and rapid change, if we are to bring about significant improvements in teaching and learning within our schools, we must forge strong, open, and interactive connections with communities beyond them” (p. xii). These connections are strengthened by our ability to supply these communities with data on the effectiveness of their efforts at improving teaching and learning.

Fullan and Hargreaves (1996) maintain,

that the challenge of interactive professionalism is the challenge of continuous school improvement. It is a process that leads in turn to gains in student achievement. No one working in and with our schools should evade this challenge. It is a challenge that involves us all, one in which we can all take positive action, even in the most apparently unsympathetic and unsupportive environments” (p.xi).

And in order to ensure that improvement is occurring across time, **all** parties involved must **utilize** the data on a regular basis whether evaluating the effectiveness of school programs or the impact of teaching/learning in the classroom.

Footnotes

¹ Please note this paper is NOT intended to sell this project but the project is used to illustrate the power of data utilization in bringing about positive systemic school change. It has been through examination of data that questions arose when attempting to find out why results were different than would be expected.

² A NCE is a statistical transformation of percentile ranks in which reading achievement is divided into 99 equal units with a mean of 50 and a standard deviation of 21.06. NCEs are generally considered to provide the truest indication of student growth in achievement since they provide comparative information in equal units of measurement. A NCE score of 50 is equal to the mean (average) score for the general population, which indicates where a student is expected to be for his/her grade level. Consequently, a NCE score of 60 is above the average. For a student’s NCE score to remain the same at posttest as at pretest does not denote a lack of absolute progress. On the contrary, it means that the student has maintained the same relative position in terms of the general population. Even a small gain in NCEs indicates advancement from the student’s original level of achievement.

³ Schools in the 1998 Research Report had only 3 years of Gates-MacGinitie Reading Test results since fall 1995 was the first time the test was administered.

⁴ The majority of schools in the 1999 Research Report only had 3 years of Gates-MacGinitie Reading Test results, but had 4 years of data on other measures. The 1996 LC-Training Class did not administer the Gates-MacGinitie Reading Test in the fall of their training year (Fall 1995).

References

- Clay, M. M. (1993). *An observation survey of early literacy achievement*. Portsmouth, NH: Heinemann.
- Darling-Hammond, L. 1993. Reframing the school reform agenda: Developing capacity for school transformation. *Phi Delta Kappa*, 74(10), 752-761.
- Diaz, M. (2001). Will reform based on standards and assessment make a difference in the 21st century? *Mid-Western Educational Researcher*, 14(1), 22-27.
- Education Commission of the States, (2000). *In pursuit of quality teaching*. Denver: CO.
- Fullan, M., and Hargreave, A. (1996). *What’s worth fighting for in your school?* New York, NY: Teachers College Press.
- Fullan, M. (2001). *The new meaning of educational change* (3rd edition). New York, NY: Teachers College Press.
- Horton, N. J., and Lipsitz, S. R. (1999). Review of software to fit generalized estimating equation regression models. *The American Statistician*, 53, 160-169.

-
- MacGinitie, W. H., and MacGinitie, R. K. (2000). *Gates-MacGinitie Reading Test* (4th Edition). Chicago, IL: The Riverside Publishing Company.
- Hay / McBer, (2000). *Research into teacher effectiveness*. Report prepared for the Department for Education and Employment, London.
- Joyce, B., and Showers, B. (1980). Improving inservice training: The message of research. *Educational Leadership*, 37, 379-385.
- Joyce, B., and Showers, B. (1982). The coaching of teaching. *Educational Leadership*, 40, 4-10.
- McCarrier, A. (2001). Teaching for phrasing and fluency: Connections to comprehension. In Pinnell, G.S. and Scharer, P.L. (Eds.). *Extending our reach: Teaching for comprehension in reading, grades K-2*. Columbus, OH: The Ohio State University.
- Fountas, I. C., and Pinnell, G. S. (1996). *Guided Reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.
- Pinnell, G. S., Pikulski, J. J., Wixson, K. K., Campbell, J. R., Gough, R. B., and Beatty, A. S. (1995). *Listening to children read aloud: Data from NAEP's Integrated Reading Performance Record (IRPR) at grade 4*. Report No. 23-FR-04. Prepared by Educational Testing Service under contract with the National Center for Educational Statistics, Office of Educational Research and Improvement, U.S. Department of Education.
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., and Kleiner, A. (2000). *Schools that learn*. New York: Doubleday.
- Scharer, P., Williams, E. J., and Pinnell, G. S. (2001). *Literacy Collaborative 2001 Research Report*. Columbus, OH: The Ohio State University.
- Williams, E. J. (1998). *Literacy Collaborative 1998 Research Report*. Columbus, OH: The Ohio State University.
- Williams, E. J., and Pinnell, G. S. (1999). *Literacy Collaborative 1999 Research Report*. Columbus, OH: The Ohio State University.
- Williams, E. J., Scharer, P., and Pinnell, G. S. (2000). *Literacy Collaborative 2000 Research Report*. Columbus, OH: The Ohio State University.

Conference Highlights

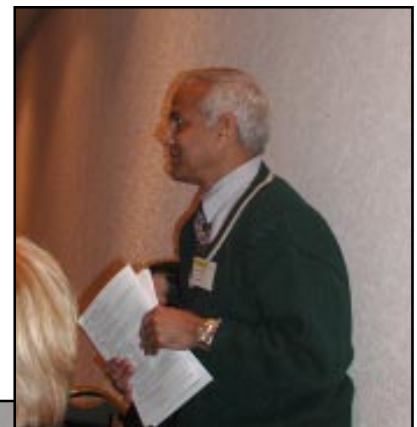
The 2001 Annual Meeting of the Mid-Western Educational Research Association

Robert S. Barcikowski
Program Chair
Ohio University

The 2001 Annual Meeting of the Mid-Western Educational Research Association (MWERA) was held in Chicago Illinois from Wednesday October 24 through Saturday October 27 at the Holiday Inn Mart Plaza. Based on attendance and member comments, I am pleased to call the 2001 conference another in a string of MWERA conference successes! Two hundred fifty three (253) persons registered for the conference; of these, 84 were new members and 62 were “student” participants. Our substantial attendance and hearty participation, in light of what our country had faced on September 11 just over one month earlier and the threats we were facing at that time, which made many people afraid to fly, and many others afraid to visit a large city, certainly showed the commitment and fortitude of our members. In what follows I would like to describe a few of the highlights

as I saw them from our Association’s perspective, but as usual, conference highlights for individual members were generally found in conversations with other members, comments made by reviewers on their or others’ presentations, or knowledge gained from symposia, invited speakers, roundtable discussions/poster sessions, business and division meetings, panels and/or workshops.

Unfortunately, President E. Jane Williams was unable to attend this year’s meeting because of a serious illness in her family—she was dearly missed. However, as you will see in the following highlights, our old pros, Immediate Past President Jeffrey Hecht and President-Elect Carmen Giebelhaus, were able to step in so that our meeting was able to flow smoothly. On behalf of the membership, I would like to thank them for their sterling efforts.



My graduate students and I were pleased to begin the conference on Wednesday afternoon with a well-attended and well-received workshop on hierarchical linear models. Wednesday evening at our Kick-Off Fireside Chat and Social sponsored by Riverside Publishing, Professor Jeremy Finn, Professor of Education at State University of New York at Buffalo, provided us with several candid comments and anecdotes from his research on class size and pupils' academic achievement and behavior. The exceptional hors d'oeuvres and repartee between the members and Dr. Finn made this a classic social.

At 8:00 AM on Thursday morning our conference began with six paper sessions and a Division K symposium. They were followed by the keynote address delivered by Jeremy Finn on small classes in American schools. Profes-

sor Finn provided research evidence to show that student achievement increased in all subjects when students were placed in classes of size twenty or less. Division meetings and paper sessions followed our keynote address, and I would like to highlight our New Member Welcome where Francine Michel brought together new members and MWERA book authors and awarded new members with a book authored by a MWERA member.

At the Division F business meeting Thursday afternoon Dr. Susan Brookhart, their featured speaker, discussed grading in its historical, social educational/psychological, and legal contexts. That afternoon Dr. Gordon Brooks and his graduate students presented a workshop on the use of Monte Carlo methods to assist in teaching introductory statistics to an enthusiastic group of attendees. Also, Dr. Mary Sudzina,



presented a very well received workshop on strategies for successfully integrating case studies in undergraduate and graduate teacher education programs. The final business meeting on Thursday was that of Division D which was sponsored by the Institute for Objective Measurement and which featured Dr. Michael Linacre from the Institute for Objective Measurement University of Chicago who discussed IRT modeling using the WINSTEPS/Facets software. Prior to going to dinner with new and old friends, members met at the Cracker Barrel Social that provided light fare and lively discussions.

Bright and early Friday morning Dr. Deborah Bainer Jenkins, former editor of our MWER journal, presented the very well attended MWERA sponsored workshop entitled "Publish or Perish". Dr. Bainer Jenkins provided her zeal-

ous group with tips, pointers and practical suggestions on how to secure publications. Prior to the Luncheon address, Dr. Eugene T. W. Sanders was the featured speaker at the Division A business meeting. Dr. Sanders discussed his transfer from being a university professor to the "real world" as superintendent/CEO of the Toledo City schools. Our luncheon address was given by Dr. John McIntyre, the past president of the Association of Teacher Educators, who delighted his audience with a discussion of the emerging trends for teacher education and offered suggestions for how colleges and schools of education should address these trends in order to prepare competent teachers for all children. Juliann Beatty from the Westin Greater Southern Hotel and Diane Share from the Columbus Visitors' Bureau concluded our luncheon with an exciting presentation on the benefits of being in Columbus Ohio the site of our 2002 conference.



On Friday afternoon Division G followed their business meeting with a symposium that was on the cutting edge of today's educational and social experiences entitled "The Muslim Experience in American Schools". Division G Chair, Dr. Anne Stinson, invited several Muslim educators to participate in this symposium among them was Mr. Yousef Hannon a Chicago school teacher who recently was the subject of an article in *Teacher Magazine* concerning this topic. Also on Friday afternoon Dr. Bainer Jenkins was the featured speaker at the Division J business meeting. Deborah Bainer Jenkins with support from Marie Holbein recounted the process of developing an innovative portfolio assessment to replace comprehensive exams in a doctoral program. That evening MWERA celebrated its 25th anniversary at its President's Reception hosted by President-Elect Carmen Giebelhaus with music, refreshments, and a delicious anniversary cake.

Saturday morning was filled with paper sessions, MWERA meetings, and an impressive Division K symposium on critical issues in international student teaching experiences. Then, at the presidential address, our Immediate Past President Jeffrey Hecht was able to step in for President E. Jane Williams and present an informative discussion on the use of Personal Digital Assistants (PDA's). Jeff's enthusiasm was infectious as he illustrated the wide variety of applications that are available for PDA's and showed how he personally used many of them. Late Saturday morning Dr. William Place chaired the session on conference feedback and planning. Division chairs and chairs-elect attended this session to get a jump-start on our 2002 conference. Based on the spirit of that meeting, I predict another terrific conference for 2002 in Columbus, Ohio.



General Information

The 2002 MWERA Annual Meeting will be held **Wednesday, October 16 through Saturday, October 19**, at the Westin Great Southern in Columbus Ohio. The program will consist primarily of presentations, selected through a peer review process, by divisional program chairpersons. In addition, there will be invited speakers and symposia, panel discussions, special sessions for graduate students and new faculty, a luncheon and other social events open to all attendees.

Proposals may be submitted either on paper or electronically over the World Wide Web. Any proposal submitted on paper must be submitted to the Program Chair, but must indicate by which Division it should be reviewed. Proposals must follow the *Guidelines for Submitting a Proposal* in this booklet. Questions about a proposal or the meeting, whether submitted on paper or electronically, should be directed to the Program Chair:

Dr. A. William Place
MWERA-2002 Program Chair
300 College Park
University of Dayton
Dayton, OH 45469-0534

Office: (937) 229-2640 or 835-5691
e-mail: jfhswwplace@mdeca.org

Electronic proposals must be submitted using the form available on the meeting Web site. Proposals e-mailed to the Division Chairs or Program Chair will not be processed. Further, each proposal should only be submitted once in one format, electronic or paper. While, no advantage is given in selection, electronic submissions are easier for all and are preferred. Specific instructions for electronic submission can be found at the meeting web site:

<http://etra.cedu.niu.edu/mweral>

Any educational professional may submit a proposal for MWERA-2002, whether or not that person is currently a member of MWERA. *All Annual Meeting presenters must be members in good standing of MWERA (non-members must join MWERA upon notification of proposal acceptance).* To promote broader participation in the program no one person should appear as a presenter on more than three proposals.

All proposals, regardless of submission format (electronic or paper), must be received by the Program Chair no later than the deadline of **May 1, 2002**. Submissions will then be sent to Division Chairs and each Division Chair will coordinate a number of volunteers in a system of blind (without author identification) review. Appropriate criteria, depending on the format and type of scholarly work being presented, have been developed and are used for the review process. These criteria include: (a) topic (originality, choice of problem, importance of issues); (b) relevance of topic to the Division and MWERA membership; (c) contribution to research and education; (d) framework (theoretical/conceptual/practical, rationale, literature review, grounding); (e) analyses and interpretations (significance, implications, relationship of conclusions to findings, generalizability or usefulness); and (f) overall written proposal quality (clarity of writing, logic, and organization).

Papers presented at MWERA are expected to present original scholarship, conducted by the author(s), which has not been previously presented at any other meeting or published in any journal. Further, it is a violation of MWERA policy to promote commercially available products or services (except as Exhibits) which go beyond the limits of appropriate scholarly/scientific communication. Individuals who wish to display educationally related products or services are encouraged to contact Dr. Sharon McNeely, Assistant Program Chair for Exhibits, P. O. Box 34421, Chicago, Illinois 60634, (913) 794-2788.

All persons presenting at the 2002 Annual Meeting are expected to register for the full meeting. All sessions listed in the program will be open to any registered meeting participant; however, enrollment may be limited, and a small additional fee required, for some Workshop sessions. Tickets for the Friday luncheon and speaker are available to all pre-registrants. *Ticket availability is not guaranteed for late and on-site registrants.* Registration materials for the 2002 Annual Meeting will be published in the *Mid-Western Educational Researcher*, on the Web site, and can be obtained by contacting the Program Chair.

Presenters whose papers have been accepted to a session with a Session Chair and/or Session Discussant are responsible for submitting a completed version of their conference paper to the Session Chair and Discussant no later than September 20, 2002. *Papers not available to the Session Chair and Session Discussant may be dropped from the program.* Presenters must also provide complete copies of their papers (or detailed handouts) to attendees at their sessions. Overhead projectors and screens will be provided by MWERA in most presentation rooms. Presenters needing additional A/V equipment are responsible for arranging such with the hotel at the presenter's own additional expense.

MWERA reserves the right to reproduce and distribute summaries and abstracts of all accepted proposals, including making such works available in a printed Program Abstract, through the meeting's World Wide Web site, and in press releases promoting the Annual Meeting and the organization. As a *condition of acceptance all authors of papers accepted to the 2002 Annual Meeting explicitly grant MWERA the right to reproduce their work's summary and/or abstract in these ways.* Such limited distribution does not preclude any subsequent publication of the work by the author(s).

Authors of accepted proposals assume the ethical and professional responsibility to appear at the Annual Meeting and to participate in their presentation or assigned session. When circumstances preclude the author(s) from doing so, it is the responsibility of the author to arrange a suitable substitute and to notify the Program Chair in advance.

Divisions*

A - Administration and Leadership

This division is concerned with research, theory, development, and the improvement of practice in the organization and administration of education.

B - Curriculum Studies

This division is concerned with curriculum and instructional practice, theory, and research.

C - Learning and Instruction

This division is concerned with theory and research on human abilities, learning styles, individual differences, problem solving, and other cognitive factors.

D - Measurement and Research Methodology

This division is concerned with measurement, statistical methods, and research design applied to educational research.

E - Counseling and Development

This division is concerned with the understanding of human development, special education, and the application and improvement of counseling theories, techniques, and training strategies.

F - History and Philosophy

This division is concerned with the findings and methodologies of historical research in education.

G - Social Context of Education

This division is concerned with theory, practice, and research on social, moral, affective, and motivational characteristics and development, especially multicultural perspectives.

H - School Evaluation and Program Development

This division is concerned with research and evaluation to improve school practice, including program planning and implementation.

I - Education in the Professions

This division is concerned with educational practice, research, and evaluation in the professions (e.g., medicine, nursing, public health, business, law, and engineering).

J - Postsecondary Education

This division is concerned with a broad range of issues related to two-year, four-year, and graduate education.

K - Teaching and Teacher Education

This division is concerned with theory, practice, and research related to teaching at all levels and in-service and pre-service teacher education, including field experience supervision and mentoring.

* Division Chairs will be announced after the 2001 meeting.

Important Dates

Proposal Submission Deadline	May 1, 2002
Notification of Acceptance	July 15, 2002
Papers to Session Chairs/Discussants	September 20, 2002
Meeting Registration and Hotel Reservations	September 24, 2002
MWERA 2002 Annual Meeting	October 16-19, 2002

Guidelines for Submitting a Proposal

Session Format Descriptions

Paper Presentation

Paper sessions are intended to allow presenters the opportunity to make short, relatively formal presentations in which they overview their papers to an audience. Three to five individual papers dealing with related topics are grouped into a single session running from 1.5 to 2 hours. The presenter(s) of each paper is(are) allowed approximately 15 minutes to present the highlights of the paper. A single Session Discussant is allowed approximately 15 minutes, following all papers, for comments and critical review. A Session Chair moderates the entire session. Presenters are expected to provide complete copies of their papers to all interested audience members.

Roundtable Discussion/Poster

Roundtable Discussion/Poster sessions are intended to provide opportunities for interested individuals to participate in a dialogue with other interested individuals and the presenter(s) of the paper. Presenters are provided a small table around which interested individuals can meet to discuss the paper. Presenters may elect to provide small, table-top poster-type displays, ancillary handouts, or other table-top A/V materials to augment their discussions. Interested individuals are free to move into and out of these discussions/posters as they wish. Presenters are expected to make available complete copies of the paper on which the roundtable discussion/poster was focused.

Symposium

A symposium is intended to provide an opportunity for examination of specific problems or topics from a variety of perspectives. Symposium organizers are expected to identify the topic or issue, identify and ensure the participation of individual speakers who will participate in the session, prepare any necessary materials for the symposium, and Chair the session. It is suggested, though not required, that the speakers or symposium organizer will provide interested individuals with one (or more) papers relevant to, reflective of, or drawn from the symposium.

Workshop

Workshops are intended to provide an extended period of time during which the workshop leader helps participants develop or improve their ability to perform some process (e.g. how to provide clinical supervision, using the latest features of the Internet, or conduct an advanced statistical analysis). Organizers may request from 1.5 to 3 hours, and are responsible for providing all necessary materials for participants. Many workshops are scheduled for Wednesday afternoon, although others may be scheduled throughout the conference. Organizers may, if they wish, receive an honorarium based upon the number of paid participants in their workshop and the fee schedule.

Alternative Session

The form, topics, and format of alternative sessions are limited only by the imagination and creativity of the organizer. These options are intended to afford the most effective method or approach to disseminating scholarly work of a variety of types. Proposals for alternative sessions will be evaluated on their appropriateness to the topic and audience, their suitability to meet the limitations of time, space, and expense for MWERA, and the basic quality or value of the topic. The organizer of alternative sessions is responsible for all major participants or speakers, developing and providing any necessary materials, and conducting or mediating the session. Because a variety of approaches may be proposed within this category, alternative session proposals should include a brief rationale for the alternative being proposed.

Best Practices Forum

The "Best Practices" sessions are intended to provide opportunities for individuals or groups to present "best" or "promising" practices impacting both K-12 and higher education. These sessions highlight unique and innovative programs that have demonstrated promise for improving and enhancing educational practice. Presenters will be grouped by similar topics to facilitate discussion between and among the groups and audience. Presenters are expected to make available complete copies of the paper on which the "Best Practices" session focused.

Materials to be Submitted

The following materials list applies to proposals submitted on paper. Separate guidelines exist for electronically submitted proposals (see the Web site for details).

Proposal Cover Sheet

Six (6) copies typewritten with all items completed. Session descriptors must be chosen from the list of descriptors provided (see table to the right).

Summary

Six (6) copies of a two to three page summary for use in judging the merits of the proposal. Summaries can be single-spaced, but must be typed on 8.5" x 11" paper in no smaller than 10-point type using 1" margins. All copies of the summary should include the title of the proposed session in the upper left-hand corner of the first page. On three of the summaries only include the name of the presenter, with his or her complete mailing address, telephone and FAX, and e-mail, in the upper right hand corner of the first page. Proposals, which do not meet these criteria, may be refused by the Program Chair without review.

Summaries for **Paper** and **Roundtable Discussion/Poster** proposals should explicitly address as many of the following as appropriate, preferably in this order: (1) Objectives, goals, or purposes; (2) Perspective(s) and/or theoretical framework; (3) Methods and/or techniques (data source, instruments, procedures); (4) Results and conclusions; and (5) Educational and/or scientific importance of the work.

Summaries for **Symposium, Workshop, and Alternative Session and Best**

Practices Forum proposals should explicitly address as many of the following as appropriate, preferably in this order: [1] Descriptive title of the session; [2] Objective, goals and purposes of the session; [3] Importance of the topic, issue, or problem; [4] Explanation of the basic format or structure of the session; [5] Listing of the Presenter and Co-Presenter(s), with an explanation of each person's relevant background and role in the session; [6] Anticipated audience and kind of audience involvement.

Abstract

Three (3) copies of a 100 - 150 word narrative abstract. The abstracts of accepted papers will be published the *MWERA 2002 Annual Meeting Abstracts* book, and will be available on the World Wide Web site. Abstracts must be typewritten, single-spaced, using a 12 point Arial or Times Roman font. Use clear, precise language, which can be understood by readers outside your discipline. In the upper left hand corner of each abstract page type the title of the paper, and the name and institutional affiliations of each author.

Envelopes

Four (4) stamped, self-addressed, business size (#10) envelopes. These will be used to inform you of: (a) receipt of the proposal by the Program Chair; (b) the decision about your paper's acceptance; (c) your scheduled session time, Session Chair, and Session Discussant, and; (d) meeting registration and hotel reservation information.

Session Descriptors

Ability Grouping	Educational Policy	Performance Assessment
Accountability	Educational Reform	Philosophy
Accreditation	Elementary Schools	Physical Education
Achievement	Equating	Planning
Action Research	Equity	Politics
Adaptive Testing	Ethics	Postsecondary Education
Administration	Ethnicity	Principals
Admissions	Evaluation	Private Education
Adolescence	Experimental Design	Problem Solving
Adult Education/Development	Facilities	Professional Development
Affective Education	Factor Analysis	Program Evaluation
Aging	Faculty Development	Psychometrics
Anthropology	Family/Home Education	Qualitative Research
Apptitude	Finance	Race
Artificial Intelligence	Gay/Lesbian Studies	Reading
Arts Education	Gender Studies	Research Methodology
Asian Education	Generalizability Theory	Research Utilization
Assessment	Gifted Education	Restructuring
At-Risk Students	Governance	Retention
Attitude	High Schools	Rural Education
Attribution	Hispanic Education	School/Teacher Effectiveness
Bilingual/Bicultural	History	Science Education
Black Education	Indian Education	Self-Concept
Business Education	Indicators/Information Systems	Social Class
Career Development	Individual Differences	Social Context
Case Studies	Information Processing	Social Processes/Development
Certification/Licensure	Instructional Design/Development	Social Studies Education
Child Development	Instructional Practices	Sociology
Classroom Management	Instructional Technology	Special Education
Classroom Research	Intelligence	Staff Development
Clinical Education	International Education/Studies	Standard Setting
Cognition	Item Response Theory (IRT)	Statistics
Cognitive Processes/Development	Language Comprehension/Development	Stress/Coping
Collaboration	Language Processes	Structural Modeling
Community Colleges	Law/Legal	Student Behavior/Attitude
Comparative Education	Leadership	Student Cognition
Compensatory Education	Learning Environments	Student Knowledge
Comprehension	Learning Processes/Strategies	Student Teaching
Computer Applications	Life-Span Development	Studying
Computerized Testing	Literacy	Supervision
Computers and Learning	Literature	Survey Research
Conceptual Change	Mainstreaming	Teacher Assessment
Constructivism	Mathematics Education	Teacher Characteristics
Continuing Education	Measurement	Teacher Cognition
Cooperative Learning	Media	Teacher Education/Development
Counseling	Medical Education	Teacher Knowledge
Counselor Training/Supervision	Memory	Teacher Research
Critical Theory	Mentoring	Teaching Context
Critical Thinking	Meta-Analysis	Technology
Cross-Cultural Studies	Metacognition	Testing
Curriculum	Middle Schools	Test Theory/Development
Data Analysis	Military Education	Textbooks
Decision Making	Minorities	Tutoring
Demography	Moral Education/Development	Urban Education
Desegregation	Motivation	Validity/Reliability
Differential Item Functioning	Museum Education	Vocabulary
Dimensionality	NAEP	Vocational Education
Dropouts	Networking	Women's Issues
Early Childhood	Organization Theory/Change	Work
Economics of Education	Peer Interaction/Friendship	Writing

Proposal Submission Cover Sheet (All Session Types)
Mid-Western Educational Research Association 2002 Annual Meeting
October 16-19, 2002 Columbus, Ohio

Presenter's Name: _____
(First Name) (Middle Initial) (Last Name)

Affiliation: _____

Mailing Address: _____

Telephone: () _____ FAX: () _____

E-mail: _____

Are you a member of MWERA? Yes No *(Reminder: If your proposal is accepted and you are not a member, you will need to join!)*

Are you a graduate student? Yes No *(Student presentations are automatically entered in the annual competition/prize contest!)*

<u>Co-Presenter(s)/Co-Author(s) Name</u>	<u>Affiliation</u>
_____	_____
_____	_____
_____	_____
_____	_____

Title of Submission: _____

<u>Division</u>	<u>Desired Session Type</u>		<u>Workshop Detail</u> <small>(Workshop Proposals Only)</small>	<u>Session Descriptors</u> <small>(From Prior Page Only)</small>
	<u>1st Choice</u>	<u>2nd Choice</u>		
<input type="checkbox"/> A <input type="checkbox"/> E <input type="checkbox"/> I	<input type="checkbox"/> Paper	<input type="checkbox"/> Paper	<input type="checkbox"/> 1 Hour Maximum	_____
<input type="checkbox"/> B <input type="checkbox"/> F <input type="checkbox"/> J	<input type="checkbox"/> Roundtable	<input type="checkbox"/> Roundtable	<input type="checkbox"/> 1.5 Hours enrollment of	_____
<input type="checkbox"/> C <input type="checkbox"/> G <input type="checkbox"/> K	<input type="checkbox"/> Symposium	<input type="checkbox"/> Symposium	<input type="checkbox"/> 2 Hours	_____
<input type="checkbox"/> D <input type="checkbox"/> H	<input type="checkbox"/> Workshop	<input type="checkbox"/> Workshop	<input type="checkbox"/> 2.5 Hours persons at	_____
<input type="checkbox"/> Cross-List (indicate):	<input type="checkbox"/> Alternative Session	<input type="checkbox"/> Alternative Session	<input type="checkbox"/> 3 Hours \$_____ per	_____
<input type="checkbox"/> Best Practices Forum				

By submitting this proposal I hereby certify that: (1) this proposal is original scholarship written and conducted by the author(s); (2) this proposal has not been previously submitted to MWERA either on paper or in electronic form; (3) this submission has not been previously published or presented at any other professional meeting; and (4) if this submission is accepted and placed on the program I will register for the full MWERA-2002 meeting, attend the conference, and deliver this presentation at the assigned date & time.

Signature: _____

Six (6) copies of this Proposal Submission Cover Sheet, typewritten, with all items completed
 Six (6) copies of a two to three page Summary: three (3) copies with author information, three (3) copies without author information
 Three (3) copies of a 100 - 150 work narrative Abstract, typewritten, in 12 point Arial or Times Roman font
 Four (4) stamped, self-addressed, business size (#10) Envelopes

**THE COMPLETE PROPOSAL SUBMISSION MUST BE RECEIVED BY THE PROGRAM CHAIR
 NO LATER THAN MAY1, 2002!**

Broadening and Changing Horizons: Still Pursuing Diversity

MWERA 2002
CALL FOR PROPOSALS
Broadening and Changing Horizons:
Still Pursuing Diversity
October 16-19, 2002 Columbus, Ohio

The Mid-Western Educational Research Association is broadening and changing our horizons—moving to Columbus, Ohio for the 2002 meeting.

We hope to reduce expenses for members and still provide graduate students and new faculty a quality forum to interact with the best and the brightest in our field. Come to Columbus and together we can maintain and improve MWERA as the best regional research association in AERA. Diversity of all kinds has always been a goal of MWERA and this year's theme reminds us that it is and will continue to be important to our organization.



The Great Southern Hotel—Columbus, Ohio

Keynote Address

Small Classes in American Schools: Research, Practice, and Politics

Jeremy D. Finn
State University of New York at Buffalo

Today I'd like to talk about an unusual combination of events—a case in which school practice has informed research which has informed practice. In particular, I'll talk about:

(1) The current status of class-size reduction programs in the U. S.; that will be short because it is changing even as we speak.

(2) The research base that provided the motivation for districtwide and statewide class-size initiatives.

(3) Some misapplication of the research.

(4) Questions about reduced classes that remain unanswered, and current work to explain why small classes are effective.

Introduction

Why is it that, after years of research and debate, class sizes are now being reduced in the elementary grades across the U. S? I presented a list of reasons to a group of legislators on April 2. They included the following:

- Everybody likes the idea of small classes. Teachers, parents, policy makers, legislators, and even the courts understand the importance of small classes for teaching and learning;
- High-quality research has demonstrated the benefits of small classes in the early grades—especially for students at risk;

And, as of April 2,

- Education had risen to the top of state and national agendas;
- The economy was healthy, so we had ample resources to direct toward school improvement.

These factors created the situation we have today. Over half the states, countless districts, and the federal government have sponsored class-size reduction (CSR) programs. In California alone, 28,000 new teachers were hired in the first three years of the statewide class-size initiative; in the first year of the federal CSR program, 29,000 new teachers were hired, mainly in poor, urban school districts. It is impossible to count the classes reduced in schools across the nation, but it is certainly a large number.

But much has changed, making the future of reduced classes in the elementary grades is less clear. The President's education plan, "No Child Left Behind," earmarks the federal reduced-class initiative as one of two programs to be eliminated. The recent decline in the economy may leave states and districts less able to hire additional teachers.¹ And

Work on this paper was supported in part by grants from the Spencer Foundation ("A Study of Class Size and Students at Risk") and the William T. Grant Foundation ("Antecedents and Consequences of High School Gateway Events").

the events of September 11 have refocused our agendas in a way that may well give lower priority to education. It remains to be seen if small class sizes have become sufficiently institutionalized that we will continue to include them in our basic educational plans.

The Research Base

Before overviews past and current research on class size, I'd like to tell you how I got involved in this field. I began as a skeptic. I was asked to serve as consultant to Tennessee's Project STAR in 1985. I told the STAR Consortium that I didn't think they would be able to complete a four-year study as ambitious as the one they had planned, and that, even if they did, they were unlikely to find positive effects. They (we) proved me wrong on both counts. Well, I analyzed the STAR data myself each year, and am now convinced that the benefits are real and replicable. Nevertheless I'm not a 'blind advocate' of small classes. I don't consider them to be a solution to our educational problems or a "silver bullet;" I view them as an essential **opportunity** for instruction to be effective and for students to become maximally involved in the learning process.

The current research base on small classes in the elementary grades includes:

- Dozens of research studies conducted prior to the mid-1980s;
- Project STAR, a large-scale randomized experiment, and short- and long-term follow-up studies of STAR participants;
- Analyses of the STAR results by different research teams using a variety of statistical approaches, and replication of the basic STAR findings through non-experimental interventions at other sites;
- Ongoing research into the classroom processes that distinguish small and large classes.

I will talk briefly about each of these.

Early research on class size

Prior to the 1980s, dozens of studies were conducted on the relationship between class size and pupil performance. Many suffered from small samples, poor research designs, and inadequate treatment of the data. To my knowledge, not one was truly a randomized experiment. Reviews of this research supported some tentative conclusions, however; among them:

- Reduced class size (below 20 pupils) can be expected to produce a modest increase in academic achievement (Glass and Smith, 1978; Slavin, 1989);
- Small classes are most beneficial in the early primary grades (Robinson, 1990);
- Students who are economically disadvantaged are most likely to benefit from small classes (Robinson, 1990).

Project STAR (Student/Teacher Achievement Ratio)

Beginning in 1985, the State of Tennessee undertook an experiment to test these propositions. Project STAR (Student/Teacher Achievement Ratio) was a large-scale **randomized within-school experiment**. Pupils entering kindergarten in each participating school were assigned at random to a small class (13-17 students), a full-size class (22-26), or a full-size class with a full-time teacher aide. Teachers were also assigned at random to the classrooms. Pupils were kept in the same condition—small, regular, or teacher aide—for up to four years (Grade 3), with a new teacher assigned at random each year.

STAR had other special features:

- The study was extensive. More than 6,000 students in 329 classrooms in 79 schools participated in the first year, and almost 12,000 students participated at some point in the four-year study;
- The class arrangement was maintained all day, all year long. There was no other intervention, for example, no special training for teachers and no special curricula;
- Both norm-referenced and criterion-referenced achievement tests were administered to each pupil each year. Other data were collected systematically on the students and on their teachers;
- STAR pupils were followed **after they all returned to full-size classes in Grade 4**. Measures of academic performance and other outcome data were collected through high school, and we are currently collecting information on postsecondary schooling and employment.

The findings of Project STAR are important building blocks in today's knowledge base about small classes. From a scientific perspective, it is also important that the STAR data have been reanalyzed by a number of researchers, using a variety of statistical procedures. With minor exceptions, all of their analyses concur with the original findings.

The Findings. The findings of STAR have been summarized in a number of publications including Word, et al., (1990), Finn (1998), Finn and Achilles (1999), and Finn,

Gerber, Achilles, and Boyd-Zaharias (2001). The recent report in *Teachers College Record* is the most intensive look at short- and long-term academic outcomes to date. In that paper, we also presented two kinds of effect sizes, the usual "standard deviation" metric and "months of schooling." Here are a few highlights, drawn from those reports.

During the experimental years (K-3):

- Small classes had statistically significant academic benefits in every grade in *all academic subjects*. {Effect sizes for the difference between small classes and full-size classes were in the range 0.2σ to 0.3σ in each school subject.²}
- The effects were greater for students who spent more years in a small class. {For example, Grade-1 students who entered small classes for the first time were about 1/2 month ahead of their schoolmates in reading and about 2 months ahead in mathematics. Grade-1 students who were in small classes for the second year (since kindergarten) were about 2 months ahead of their schoolmates in reading and about 3-1/2 months ahead in mathematics.}
- In every grade, the benefits of small classes were greater for minority students or students attending inner-city schools than for White students in non-urban schools. The effect sizes were often as much as two to three times as great, thus reducing the White-minority achievement gap.

Economist Alan Krueger reanalyzed the STAR data and concluded that, by third grade, the Black-White gap in school performance would be reduced by 38% if all students had attended small classes (Krueger and Whitmore, 2001).

All students returned to full-size classes in Grade 4, but continued to be followed:

- The benefits of small classes continued to be statistically significant through all subsequent grades *in all subject areas*.³
- Both **starting early** in small classes and **continuing in small classes for multiple years** were related to the duration and strength of carry-over effects. In each grade (4-8), both sets of effect sizes were larger for students who had spent more years in small classes in K-3. {For example, at the end of Grade 6, students who had attended small classes for one year had a 1.2-month advantage in reading over students who had attended full-size classes. Students who had attended small classes for 2 years had a 2.8-month advantage. Three years in a small class produced a 4.4-month advantage. And so on, in each school subject.}

Confirmation of the Findings. A number of (non-experimental) CSR initiatives have been undertaken following STAR, but most do not have systematic evaluations. Those that do replicate the basic results of STAR. Among them are Wisconsin's Project SAGE (Molnar, et al., 2000) and the well-researched effort in Burke County, NC (Egelson, Harman, and Achilles, 1996; Egelson and Harman, 2000). Both are targeted to schools serving low-income students. California's statewide CSR initiative has only been thoroughly evaluated for grade 3; because most classes in K-2

were reduced at one point in time, no comparison groups were available. The effect sizes are close to those obtained in STAR for students who entered small classes in Grade 3 (see CSR Research Consortium, 2000).

“The other shoe”—Teacher Aides. Project STAR’s results for teacher aides have often been overlooked because of the findings for small classes, but they have significant policy implications. When STAR was designed, Tennessee policy makers hoped that teacher aides could provide the same benefits as small classes but at a substantially lower cost.

The STAR analyses continually reported “no significant difference” between teacher-aide classes and full-size classes without aides. Those results were summarized and extended in several recent reports, including two by myself and Susan Gerber (Boyd-Zaharias and Pate-Bain, 1998; Finn, Gerber, Farber, and Achilles, 2000; Gerber, Finn, Achilles, and Boyd-Zaharias, in press).

In the Gerber papers, it was estimated that there were over 600,000 teacher aides in American classrooms (in 1998), costing about \$9 billion annually. Unfortunately, virtually all research on the topic, including STAR, finds that, in general, teacher aides benefit neither teachers nor students.

For example, in Gerber’s research, the academic performance of students in teacher-aide classes was compared with both other class types (small and full-size classes without aides), systematic ratings of student behavior were compared among the class types, and teachers in the three class types reported the severity of problems they encountered in their classrooms managing time, managing and controlling the class, and engaging students in learning activities.

The study posed two questions, the first being: “Do students in teacher aide classes perform as well or behave as well as do students in small classes?” To quote from the report,

The answer is unequivocally “no.” In terms of academic achievement, students in small classes performed significantly better on every test administered in every grade. There were no exceptions. ... In terms of behavior...students who had attended small classes exhibited superior learning behaviors on two of three dimensions and on total engagement (in learning)... When teachers were interviewed about their preference, 71% said they would prefer teaching a small class to teaching a regular class with a full-time assistant. (p. 163)

The second question was “Do classes with teaching assistants have advantages over full-size classes without assistants?” The results lead to these conclusions:

Here, too, the answer is “no.” No overall differences in academic achievement were found between the performance of students in teacher aide classes and students in regular classes on any test in any grade. ... In several instances, students in aide classes performed **more poorly** than did students in non-aide classes ...In terms of learning behavior, again no significant differences were found ...

in Grade 4 or Grade 8. In several instances, behavior was marginally *poorer* among students in classes with aides. (pp. 163-164, bold added)

Finally, teachers with aides reported little or no relief from the responsibilities of teaching, even when teaching assistants were classified according to the types of duties they performed: administrative, noninstructional interactions with students, or instruction.

Some districts (e.g., Burke County, NC; San Diego, CA) have used teacher aide monies to hire additional teachers. Given the absence of positive impact for aides and even the possibility of negative effects, this seems to be sensible policy. The other option discussed in the reports – to “remedy the deficient preparation of paraprofessionals for the tasks they perform, the lack of clearly defined roles for aides in the classroom, and the absence of training for teachers in utilizing their assistants” (Finn, et al., 2000, p. 165)—also deserves serious consideration.

Other Findings about Small Classes

Project STAR did not undertake sufficient studies of classroom processes. However, from the limited process research undertaken in STAR and research on other CSR initiatives, several additional findings have emerged. Among them:

- Teacher morale is improved in small classes (Glass and Smith, 1978; Johnston, 1990);
- Teachers spend more time on direct instruction and less on classroom management when classes are smaller (Molnar, Smith, and Zahorik, 1999);
- There are fewer disruptions in small classes and fewer discipline problems (CSR Research Consortium, 2000; Achilles, Kiser-Kling, Aust, and Owen, 1995);
- Students’ engagement in learning is increased (Finn, Fulton, Zaharias, and Nye, 1989; Evertson and Folger, 1989);

Also:

- In-grade retentions are reduced (Harvey, 1993; Word, et al., 1990);
- Dropout rates may be reduced (Preliminary data in Bain, Fulton, and Boyd-Zaharias, 1999);
- Greater numbers of students who attend small classes in the early grades elect to take SAT or ACT tests in high school. That is, aspirations to attend college are increased, especially among African-American students (Krueger and Whitmore, 2001).

It is noteworthy that some of these outcomes produce cost savings.

A Comment About the Costs of Reduced Class Sizes

I don’t want to discuss the issue of costs in depth, but I’d like to comment on the approaches that have been taken in examining this question. Small classes have been described as an expensive intervention. There have been several analyses of costs including the one by Brewer, Krop, Gill, and

Reichardt (1999) who estimated the nationwide costs of CSR under different policy alternatives, and less thorough analyses by Witte (2000) and Harris and Plank (2000).

However, none of these analyses—performed by researchers who are usually insightful—has looked at possible resource trade-offs nor have they examined the factors on the benefit side of the equation. The issue of trade-offs is complex so I'm not surprised it hasn't been studied. For example, I mentioned several districts that used teacher-aide funds to hire additional teachers and reduce class sizes.

But I am surprised about the omission of **benefits** from these analyses. To my knowledge, the only analysis of benefits performed in recent years was that done by economist Alan Krueger. Using data from STAR, Krueger (1999) concluded that the benefits of reducing class sizes, in terms of students' future earnings, are very close to the per-pupil cost of reduced classes.⁴ In other words, the costs are recovered in the form of personal income to the students.⁵

However, the total benefits may be greater still. If small classes are an incentive for teachers to remain in urban settings, if students are more likely to attend college, and if grade retentions and dropout rates are decreased, then these represent cost savings as well and need to be included in any complete analysis of the costs and benefits of small classes.

How To Do Small Classes the Wrong Way

The implementation of reduced class sizes have produced some “tried and true” ways to negate their benefits. I will mention two in particular.

(1) In the rush to hire and place new teachers in classrooms, overlook the need for professional development and support

The California CSR initiative demonstrated the serious side effects of doing things too quickly. In its haste to reduce class sizes in K-3 in a matter of a few months, many individuals were placed in classrooms without completed teaching credentials not to mention adequate experience managing students. The effect was so large that the preparation level of the entire state's teaching force declined (Stecher, Bohmstedt, Kirst, McRobbie, and Williams, 2001). Stecher, et al., (2001) recommend that CSR initiatives be undertaken slowly and with careful planning. I would add the recommendation that we also make use of focused programs of professional support and development.

Project STAR demonstrated that the benefits of small classes are obtained **without** any special teacher preparation. However, several CSR programs have used professional development effectively in conjunction with reduced classes. This makes good sense because:

- Many teachers placed in elementary classrooms are new to teaching, new to the classroom, and new to their school setting. They need help “getting started.”
- Many veteran teachers are transferring from other settings to small classes. The instructional practices they have learned from years of experience are not always “current best practice.” (An understatement.) Updating is important.

- It may be possible to *enhance* the benefits of small classes by taking advantage of the opportunities small classes provide. Professional development can show teachers how to cover content in greater depth (Anderson, 2000) and how to take best advantage of the increased sense of community that typify small classes.

The report “The Professional Development and Support Needs of Beginning Teachers” (Pannozzo and Finn, 2000) discusses these issues further as well as how to target programs to be most useful.

(2) Confuse “pupil-teacher ratios” with “class size”

I'd like to emphasize the difference between these concepts. “Class size” is the number of students regularly in a teacher's classroom for whom that teacher is responsible each day. The idea of class size is important to **teachers** because it constrains all of her interactions with pupils, encourages or discourages learning behavior and pro- or anti-social behavior, and is clearly related to the amount of material students learn. As my colleague Charles Achilles would say, “A class with 15 students and one teacher has a class size of 15. A class with 28 pupils and one teacher has a class size of 28. A class with 28 pupils and two teachers and a full-time teacher aide still has a class size of 28.”

The “pupil-teacher ratio” is the ratio of the number of students in an educational unit to the number of full-time equivalent education professionals assigned to that unit. Pupil-teacher ratios have been used by **economists** for many years to develop funding formulas for districts and states. However, the pupil-teacher ratio for a school, district, state, or nation **does not describe the proximal setting in which pupils are learning**. In the U.S., many urban districts have small pupil-teacher ratios (including Boston and New York City), because of the large number of ancillary staff members, even though most students spend the entire school day in overcrowded classrooms (see, for example, Lewit and Baker, 1997; Miles, 1995).

Why is the distinction important? This distinction is important for two reasons. First, the strong research base on small classes does not apply to large classes, no matter how many teachers are present. Some schools, facing a shortage of classroom space, have created large classes with several teachers, or with teachers and aides, instead of small classes. Although large team-taught classes may sometimes be effective, this has not been confirmed with large samples or through a controlled experiment. Simply put, we don't have the same level of scientific information about how these classroom arrangement works.

Two, critics have used data on pupil-teacher ratios to attempt to disprove that small classes are beneficial (e.g., Hanushek, 1998). Because pupil-teacher ratios are usually computed for large, heterogeneous units (i.e., **school districts, states, or countries**), it is little surprise that they have a weak relationship with academic achievement. These levels of analysis may be appropriate for an economist's work but not for an educator concerned with teaching and learning in individual classrooms.⁶

Unanswered Questions/Ongoing Research

Many questions remain to be answered. Among those that are asked repeatedly:

- How small is “small?” Is a class of 20 students likely to be as effective as, say, 17?
- How effective are small classes in the middle grades? In high school?
- Can the effects of small classes be **enhanced** through particular instructional strategies? By combining CSR with other interventions, for example, preschool programs or remedial programs? By taking advantage of the improved sense of community that arises in small classes?
- And many more...

Two broad questions are being addressed currently. First, **what are the long-term impacts of small classes in the early grades?** Alan Krueger and his colleagues have been augmenting the STAR data with information about students who take college admissions tests (SAT or ACT), information about child bearing, information about delinquent or criminal behavior, and will eventually collect information about unemployment rates. Preliminary reports have already documented the relationships of class size with some of these outcomes (e.g., Krueger, 2000; Krueger and Whitmore, 2001). Also, together with HEROS, Inc., the primary STAR organization in Tennessee, we are also performing a number of follow-up analyses.⁷ We will examine the high-school courses taken by STAR participants, high school grades, and graduation rates, and will conduct approximately 500 telephone interviews to document postsecondary schooling and employment. In all, we will have a formidable 17-year data base that can be used for this and other purposes.

The second question we⁸ are pursuing is the “black box” question: **Why do small classes work as well as they do?**⁹ Many people speculate that teachers change their instructional styles in small classes, providing more one-on-one teaching and higher-quality instruction. Interestingly, neither STAR nor other process studies support this hypothesis. It is pretty clear that teachers of small classes spend more time on direct instruction and less time on classroom management and discipline. However, few if any qualitative differences occur spontaneously when class sizes are reduced. In general, changes in instruction are small and do not explain the consistent academic benefits that are found.

We are pursuing a second hypothesis—that students become better students in small classes, that is, they become more engaged in learning and display more pro-social behavior and less anti-social behavior. We have located 15 studies of students’ learning and social behavior; they vary considerably in quality. Nevertheless, of 46 measures of students’ engagement in learning, 30 are consistent with this hypothesis; not one is contradictory. Likewise, of 27 measures of students’ social behavior, 17 support our hypothesis; again, not one finding favors large classes.

Psychological theory also explains why students may become better students in small classes. We have identified four theoretical perspectives that explain why student behavior differs in small and large classes.¹⁰ We call the first the “firing line hypothesis:” in a small class, each student experiences continuing pressure to participate. S/he may be called upon at any time to answer questions or participate in a class discussion; s/he can’t avoid the teacher’s attention by sitting in some obscure place in the classroom; and the teacher can’t readily ignore any particular pupil, **even if she would like to.**

Second, small classes tend to encourage a closer “sense of community” among students and between teachers and students (see, for example, Bateman, 2000). Teachers of small classes report that they know each individual student better than they would in a larger class. Students tend to be more supportive of one another and to develop a stronger sense of identification with the class as a whole.

Third, the concepts “social loafing” and “diffusion of responsibility” have been used to explain why smaller groups of people are more responsive than individuals in larger groups (see Darley and Latane, 1968; Levine and Moreland, 1998). And fourth, the study of group dynamics has shown that “small-group norms” are different from “large-group norms.” Researchers have documented a negative correlation between the size of a group and its functional size, that is, the number of group members who participate in any given activity (Bray, Kerr, and Atkin, 1978). Again, these principles apply to the classroom as well.

All four perspectives lead to the conclusion that the intensity of the teaching/learning experience is increased for students in smaller classes. Of course more research is needed to test these (non-mutually-exclusive) propositions.

One Final Comment

My final point today is the need for further research based on ongoing CSR programs. In recent years, many districts have undertaken CSR, often without any accompanying research or evaluation. It may not be necessary to show that academic achievement is improved in every site. It is necessary, however, to make sure that smaller classes are implemented correctly and that problems are addressed quickly. Several evaluations, including the one we conducted in Buffalo, New York (Finn, Gerber, and Pannozzo, 2000), have identified implementation problems so that mid-course corrections could be made. It is also important that basic information is available to administrators, parents, and legislators to demonstrate whether resources have been invested properly.

There is still a lot to learn about small classes and classroom processes. CSR sites provide researchers with a rare opportunity—a large number of “natural laboratories” for answering questions about implementation, processes, and outcomes. If you are working in a setting where class sizes are reduced, please encourage the administrators to engage

in formative evaluation **and** research—for their benefit and for the benefit of the broader education community.

Footnotes

¹ Through good planning and flexibility, some districts are able to reduce class sizes without increasing per-pupil expenditures (see, for example, Achilles, Harman, and Egelson, 1995)

² Despite our efforts, we have not yet found a satisfactory way to combine these into a measure of “overall impact.”

³ The Tennessee state testing program for all students ends in Grade 8, but there was no indication that the benefits would not continue beyond that grade.

⁴ Henry Levin conducted an independent analysis of these variables, presented at the American Educational Research Association meeting in 1998, and obtained figures very similar to Krueger’s.

⁵ Our current research includes data on the employment of STAR participants after they leave high school. Hopefully, we will be able to provide direct evidence on this issue.

⁶ Other economists have called Hanushek’s conclusion of “no relationship” into question, showing that more appropriate analyses of his data—even based on pupil-teacher ratios—lead to the opposite conclusion (for example, Hedges, Laine, and Greenwald, 1994; Krueger, 2000).

⁷ With support from the William T. Grant Foundation.

⁸ Myself together with Gina Pannozzo and Charles Achilles.

⁹ Work is supported by The Spencer Foundation.

¹⁰ I emphasize that this is still theory at this point in time, derived from a combination of research findings, anecdotal reports, classroom observations, and debate about what is happening in the classrooms.

References

Achilles, C. M., Harman, P., and Egelson, P. (1995). Using research results on class size to improve pupil achievement outcomes. *Research in the Schools*, 2(2), 23-30.

Achilles, C. M., Kiser-Kling, K., Aust, A., and Owen, J. (1995, April). *A study of reduced class size in primary grades of a fully Chapter 1-eligible school: Success Starts Small (SSS)*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Anderson, L. W. (2000). Why should reduced class size lead to increased student achievement? In M. C. Wang and J. D. Finn (Eds.), *How Small Classes Help Teachers Do Their Best* (pp. 3-24). Philadelphia, PA: Temple University Center for Research in Human Development and Education, and the U.S. Department of Education.

Bain, H. P., Fulton, B. D., and Boyd-Zaharias, J. (1999, April). *Effects of class size reduction in the early grades (K-3) on high school performance: Preliminary results (1999) from Project STAR*. Presented at the National Press Club, Washington, DC.

Bateman, H. V. (2000, December). *Students’ sense of community: Implications for classroom size*. Paper presented at the National Invitational Conference on Taking Small Classes One Step Further, Washington, DC.

Boyd-Zaharias, J., and Pate-Bain, H. (1998). *Teacher aides and student learning: Lessons from Project STAR*. Arlington, VA: Educational Research Service.

Bray, R. M., Kerr, N. L., and Atkin, R. S. (1978). Effects of group size, problem difficulty, and sex on group performance and member reactions. *Journal of Personality and Social Psychology*, 36, 1224-1240.

Brewer, D., Krop, C., Gill, B. P., and Reichardt, R. (1999). Estimating the cost of national class size reductions under different policy alternatives. *Educational Evaluation and Policy Analysis*, 21, 179-192.

CSR Research Consortium (2000). *Class size reduction in California: The 1998-99 evaluation findings*. Sacramento, CA: California Department of Education.

Darley, J. M., and Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 10, 202-214.

Egelson, P., and Harman, P. (2000). Ten years of small class size in Burke, County, North Carolina In M. C. Wang and J. D. Finn (Eds.), *How Small Classes Help Teachers Do Their Best* (pp. 227-278). Philadelphia, PA: Temple University Center for Research in Human Development and Education, and the U.S. Department of Education.

Egelson, P., Harman, P., and Achilles, C. M. (1996). *Does class size make a difference? Recent findings from state and district initiatives*. Greensboro, NC: Southeast Regional Vision for Education (SERVE).

Evertson, C. M., and Folger, J. K., (1989, March). *Small class, large class: What do teachers do differently?* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Finn, J. D. (1998). *Class size and students at risk: What is known? What is next?* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Institute on the Education of At-Risk Students.

Finn, J. D., and Achilles, C. M. (1999). Tennessee’s class size study: Findings, implications, misconceptions. *Educational Evaluation and Policy Analysis*, 21, 97-110.

Finn, J. D., Fulton, B. D., Zaharias, J., and Nye, B. A. (1989). Carry-over effects of small classes. *Peabody Journal of Education*, 67, 75-84.

Finn, J. D., Gerber, S. B., Achilles, C. M., and Boyd-Zaharias, J. (2001). The enduring effects of small classes. *Teachers College Record*, 103, 145-183.

Finn, J. D., Gerber, S. B., Farber, S. L., and Achilles, C. M. (2000). Teacher aides: An alternative to small classes? In M. C. Wang and J. D. Finn (Eds.), *How Small Classes Help Teachers Do Their Best* (pp. 131-173). Philadelphia, PA: Temple University Center for Research in Hu-

- man Development and Education, and the U.S. Department of Education.
- Finn, J. D., Gerber, S. B., and Pannozzo, G. M. (August 2000). *Evaluation of the class size reduction initiative, Buffalo Public Schools, 1999-2000*. Buffalo, NY: University at Buffalo, Graduate School of Education.
- Gerber, S. B., Finn, J. F., Achilles, C. M., and Boyd-Zaharias, J. (in press). Teacher aides and students' academic achievement. *Educational Evaluation and Policy Analysis*.
- Glass, G. V., and Smith, M. L. (1978). *Meta-analysis of research of the relationship of class size and achievement*. San Francisco: Far West Laboratory for Educational Research and Development.
- Goldstein, H., and Blatchford, P. (1998). Class size and educational achievement: A review of methodology with particular reference to study design. *British Educational Research Journal*, 24, 255-268.
- Hanushek, E. A. (1998). *The evidence on class size*. Rochester, NY: University of Rochester, W. Allen Wallis Institute of Political Economy.
- Harris, D., and Plank, D. N. (2000). Making policy choices: Is class-size reduction the best alternative? In S. W. M. Laine and J. G. Ward (Eds.), *Using what we know: A review of the research on implementing class-size reduction initiatives for state and local policymakers* (pp. 21-34). Oak Brook, IL: North Central Regional Educational Laboratory.
- Harvey, B. (1993, December). *An analysis of grade retention for pupils in K-3*. Unpublished doctoral dissertation. University of North Carolina, Greensboro.
- Hedges, L. V., Laine, R. D., and Greenwald, R. (1994). Money does matter somewhere: A reply to Hanushek. *Educational Researcher*, 23(4), 9-10.
- Hedges, L. V., Nye, B., and Konstantopoulos, S. (1999). The long-term effects of small classes: A five-year follow-up of the Tennessee class size experiment. *Educational Evaluation and Policy Analysis*, 21, 127-142.
- Johnston, J. M. (1990, April). *What are teachers perceptions of teaching in different classroom contexts?* Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.
- Krueger, A. B. (1999). Experimental estimates of education production functions. *Quarterly Journal of Economics*, CXIV, 497-532.
- Krueger, A. B. (2000). An economist's view of class size research. In M. C. Wang and J. D. Finn (Eds.), *How Small Classes Help Teachers Do Their Best* (pp. 99-130). Philadelphia, PA: Temple University Center for Research in Human Development and Education, and the U.S. Department of Education.
- Krueger, A. B., and Whitmore, D. (2001, March). *Would smaller classes help close the Black-White achievement gap?* Princeton University Industrial Relations Section Working Paper No. 451. Available on the Internet at www.ir.princeton.edu/pubs/working_papers.html.
- Levin, H. M. (1998, April). *Small classes in the early grades: Research and implementation*. Discussant for session presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Levine, J. M., and Moreland, R. L. (1998). Small groups. In D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.), *The handbook of social psychology* (Vol 2, 4th ed., pp. 415-469). New York: McGraw Hill.
- Lewit, E. M., and Baker, L. S. (1997). Class size. *The Future of Children*, 7, 112-121.
- Miles, K. H. (1995). Free resources for improving schools: A case study of teacher allocation in Boston Public Schools. *Educational Evaluation and Policy Analysis*, 17, 476-493.
- Molnar, A., Smith, P., and Zahorik, J. (December, 1999). *1998-99 Evaluation results of the student achievement guarantee in education (SAGE) program*. Milwaukee, WI: University of Wisconsin, School of Education.
- Molnar, A., Smith, P., Zahorik, J., Ehrle, K., Halbach, A., and Kuehl, B. (2000). *1999-2000 Evaluation of the student achievement guarantee in education (SAGE) program*. Milwaukee, WI: University of Wisconsin, School of Education.
- Pannozzo, G. M., and Finn, J. D. (2000, December). I. Paper presented at the National Invitational Conference on Taking Small Classes One Step Further, Washington, DC.
- Robinson, G. E. (1990). Synthesis of research on the effects of class size. *Educational Leadership*, 47(7), 80-90.
- Slavin, R. E. (1989). Achievement effects of substantial reductions in class size. In R. E. Slavin (Ed.), *School and classroom organization* (pp. 247-257). Hillsdale, NJ: Erlbaum.
- Stecher, B., Bohrnstedt, G., Kirst, M., McRobbie, J., and Williams, T. (2001). Class-size reduction in California: A story of hope, promise, and unintended consequences. *Phi Delta Kappan*, 82, 670-674.
- Witte, J. F. (2000). Reducing class size in public schools: Cost-benefit issues and implications. In S.W. M. Laine and J. G. Ward (Eds.), *Using what we know: A review of the research on implementing class-size reduction initiatives for state and local policymakers* (pp. 5-20). Oak Brook, IL: North Central Regional Educational Laboratory.
- Word, E., Johnson, J., Bain, H. P., Fulton, D. B., Boyd-Zaharias, J., Lintz, M. N., Achilles, C. M., Folger, J., and Breda, C. (1990). *Student/Teacher Achievement Ratio (STAR): Tennessee's K-3 class-size study*. Nashville, TN: Tennessee State Department of Education.

Emerging Trends in Teacher Education

John McIntyre
Affiliation ??????

Teacher education is at a crossroads. How often have you heard that phrase? I remember hearing that when I began my doctoral studies at Syracuse University in the mid-70's. That is when Competency-based Teacher Education (CBTE) was the savior of the day and was going to prepare quality teachers for all children. Then in the early 1980's we had a "Nation at Risk" and another national education crisis.

So—are we truly at a crossroads? I believe that the way we are preparing teachers is changing and that the pressures—political, social, and economical—are increasing at such an alarming pace that the real questions are (1) "just how much will the education of novice teachers and the continuing education of practicing teachers change" (2) "who will be the future agents of change for teacher education," and (3) "who will be the teacher educators of the future?"

With apologies to David Imig, President and CEO of AACTE and perhaps this country's best analyst of trends in teacher education, I would like to frame my discussion around three of the areas that he highlights in his most recent environmental scan—Accountability, Alternatives, and Demand.

Until recently, accountability has been associated with high stakes testing of students and teachers in our public schools. We teacher educators have looked from a distance at the "wailing and gnashing of teeth" from our public school brethren and, although, we were sympathetic as their school report cards were published and their schools were ranked from top to bottom in state after state, it didn't really touch our lives. That is until our own states began requiring basic skills and content tests of our teacher candidates, and then we had our own stories and fears—like the debacle with teacher tests in Massachusetts.

Then came Title II. We found ourselves defending our rankings in quartiles that were absolutely meaningless—especially when a university with a 97% or 98% aggregated pass rate was still in the third quartile. In Illinois, we recently had our own little "controversy" with state teacher tests when the Chicago Sun-Times published a series of articles on the performance of Illinois' teachers on the basic skills and content tests and how 5,000+ teachers who are teaching in Illinois' schools had, at one time, failed one of their tests. It all but ignored the fact that nearly all of those teachers had passed the test at a later date, that the universities don't control when the students can take the test, that some students in some content areas take the tests before they have completed all of the content coursework because

the test is difficult and they want to get a "feel for it," or results on teacher tests have little to do with a teacher's effectiveness in the classroom. Interesting articles but so poorly researched and analyzed that we would not allow one of our doctoral students to present their findings in a similar manner in a dissertation defense. I still wait for the articles to follow that describe the high failure rate of those taking the CPA and Bar exams for the first time. Amazing how nobody questions the competence of a CPA or an attorney who might have failed their exam during their first sitting but are now practicing their profession after having passed it at a later date. All that one cares about is that they did eventually pass it.

Another illustration of the direction of this trend can be found in a recent conversation I had with a newspaper reporter where I had to explain why we should be positive with such a high pass rate on our tests. Her rationale or question was, "If we expected our students to do well, why should we be so positive about the fact that they did do well?" I should have asked her that if the University of Illinois is the preseason pick to finish #1 in basketball and they do, in fact, finish #1, then we should not celebrate because they merely meet their original expectations. The frustrating and dangerous aspect of this trend within accountability is that we traditionally have not influenced the perception of our profession in the press and, regardless of accuracy, that perception is often accepted by the public, politicians and policy makers.

I will not belabor this point further other than to recommend that you read Gerald Bracey's article in the October 2001 Kappan on high stakes testing. Although he focuses on the testing of K-12 students, I believe his remarks and insight also can be applied to the growing issue of high stakes testing in teacher education.

The second issue within the Accountability trend I want to discuss is teacher quality. Teacher Quality has ascended to a prominent place on virtually everyone's agenda. In fact, the Bush agenda assumes that quality teachers are the keys to educational reform and success. We are beginning to see policy makers shifting attention to teacher's ability to perform in the classroom to realizing student achievement gains on various assessments. Much of this shift is being influenced by the Value Added research of Williams Sanders (1996, 2001).

Value Added Research measures the progress rate of each child. Since 1991, Dr. Sanders has gathered longitudinal growth data on over 10 million students. Sanders has

posited, based on his data, that the way to increase educational achievement and student growth is to focus on the growth rate of each individual child. As a result, he has found that measures of Teacher Effectiveness are the single greatest factor on student academic achievement. This variable is so strong that all other factors seem trivial in comparison. This is especially true in mathematics.

With over 10 million subjects in your pool, you are going to discover some pretty powerful trends that can inform all of us about the state of our schools. For example, Dr. Sanders' research has discovered that teachers in inner city schools and poor, rural school districts tend to provide most of their attention to low achievement students. As a result, early achieving students, especially African-American students, are hurt the most in these schools. Luckily, he has discovered that this trend is not as powerful lately. In suburban schools, higher achievement students tend to receive most of the attention; leaving the middle and lower achieving students behind. Finally, Sanders data indicate that in schools that adopt one approach for instruction for all students—the one lesson plan for all student types, students that deviate the most from the center progress the least.

Sanders' research impacts what we do in teacher education in several ways. First, policy makers and legislators are listening to what he is saying. How they interpret what he is saying and how they react to what he is saying will play a large role in how legislators and policy makers influence what we do on our campuses. Already, however we are beginning to see the importance of how our teacher candidates' influence student learning enter into the dialogue regarding accreditation and program approval. Second, Sanders' data has revealed that it takes a student at least four years before one can no longer see the negative impact of an ineffective teacher on that student's growth. The challenge of Sanders' research to teacher education programs is that we must increase the readiness of our teacher candidates. We must establish entrance standards that encourage only those with potential for excellence to be admitted to our programs and exit standards that allow only those who have proven themselves in the university classroom and in the public school classroom to become certified to enter the teaching profession.

The issue of quality also revolves around the area of School Leadership. Richard Elmore's book, "Building a New Structure for School Leadership," challenges the way schools are presently designed and the ways they are led. I believe that the pressure for rethinking and redesigning how we prepare school administrators and school leaders is going to increase. It may be that the principal of the future may be limited to managerial responsibilities only and that the responsibility for school leadership—for the designing of curriculum and related programs, instilling vitality in instruction, etc.—will be the responsibility of those especially trained for that assignment.

The more I considered the trends of alternatives and demand, I realized that in many respects they are related to each other. The issues of supply and demand and the issue of teacher shortage (whether real or not) have helped fuel the call for alternative routes to teacher and administrative certification. Nearly every teacher education program in this country has some type of alternative route to teaching program. In some cases, the alternative program may extend for a year of coursework followed by an intensive internship in a classroom. In other cases, the coursework may take place over a summer followed by a year in a classroom with a mentor. Whatever, the format, there is very little research on the effectiveness of alternative route programs.

What do we know about these programs? Bernice Stone and Susanna Mata (2000) found that beginning teachers from California's fast track program needed a great deal of support and assistance during their first year of teaching. Unfortunately, this support is not uniform throughout the schools and is often provided by overworked teachers at the school site, rather than by mentor teachers who have been trained, compensated and assigned by the district to beginning teachers.

Paccione, McWhorter and Richberg (2000) found that teachers who completed Project Promise at Colorado State University surpassed both the traditional and PDS approach in nearly all measures of program effectiveness. In addition, Project Promise completers remained in teaching at significantly higher rates than did traditional program completers. On measures of satisfaction in the areas of teaching strategies, diversity and technology, project promise program completers rated their preparation significantly higher than traditional program completers rated their preparation.

On the other hand, Shen (2000) conducted a major study on the impact of alternative certification policy. He concluded that some arguments for alternative certification are not supported by the national data. He states that in comparison with traditional certification programs, alternative certification does not reduce the teacher shortage in rural schools, and is unable to recruit individuals with higher education attainment into teaching.

On the other hand, alternative certification programs recruit a higher percentage of minority teachers into the teaching force than do traditional programs; a higher percentage of alternative certification teachers work in urban schools where minority students are concentrated; a higher percentage of alternative certification teachers teach mathematics and science in public schools; and a higher percentage of alternative certification teachers have experience in business or military service.

As we all know, alternative teacher certification is not limited to the domain of higher education. Perhaps the most well known program outside of higher education is Teach for America (TFA), founded by Wendy Kopp. Most recently, the AACTE Briefs (2001) contained an article that reported on the initial evaluation of this program. The article declares that the "first independent evaluation of Teach for

America's impact on student achievement finds that TFA teachers perform at least as well as non-TFA teachers. Sponsors of the study stated that it proved that it is not necessary to spend an extended period of time in an Ed school in order to be effective in a K-12 classroom.

One might argue that the sponsor of the study, the Thomas B. Fordham Foundation, supported by Chester Finn, is hardly an independent group. However, the data does provide us with an interesting comparison and contrast to what occurs in traditional certification programs.

Other alternative programs also are being delivered by school districts, mostly large urban districts, as a means of producing enough teachers to staff their classrooms. Little is known about the effectiveness of these programs. It is an area that is ripe for study.

Recently, we have been reading in the Chronicle of Higher Education and Education Week about teacher education programs leading to certification beginning to be offered at community colleges. Traditionally, community colleges have been two-year institutions that offer associate degrees in a variety of areas. Many of us in four-year institutions see this trend as an assault on an area that belongs to us. Our somewhat elitist attitude attacks the credibility and effectiveness of any four-year program that can occur at a two-year institution. However, a recent exchange that Dr. Keith Sanders, Director of the Illinois Board of Higher Education, had with the Illinois public school deans helped put some thing in perspective for me.

Keith referred to this move by community colleges into an area traditionally reserved for four-year institutions as "mission creep." He states that it is a natural development for institutions to seek avenues for expanding their original mission. He pointed out that most four-year institutions began as normal schools whose primary, if only mission was to prepare teachers. Gradually, we expanded this mission to become colleges and then comprehensive universities.

Sanders strongly urged the Illinois Deans to begin working with the community colleges to develop partnerships for the preparation of teachers. This is important for a number of reasons. One, many of our institutions receive up to 60% of our students in teacher education as transfers from local community colleges. Thus, it makes sense to develop ways to make this transition even smoother or more natural for our students. Closer ties means it is more likely that courses taken at community colleges will be similar in content—and hopefully—in rigor to those being taught on the university campus.

I did have a concern the other day however. As a result of an external audit, our teacher education program had to an analysis of one of physical education courses included in our general education sequence but also taken by elementary education majors to meet their certification requirements. We bought the textbook and I skimmed through it for content. Actually it was a very interesting and useful text that included such topics as nutrition, exercise, weight manage-

ment, etc. However, one of our student workers overheard our discussion regarding the audit of this course and told us she was taking the equivalent at a local community college. The course she was taking at the community college had been approved at the state level through our Illinois Articulation Initiative as a transferable course equivalent to the PE course we were examining. What did she have to do for this equivalent, transferable course? She had to spend a certain number of hours running on a treadmill...no coursework...no assignments...no assessment. An equivalent course to our PE course that our SIUC students have to take...same content...same rigor? I believe that this gets to the heart of the issue when faculty at four-year institutions learn that teachers can be certified at a community college. I don't use this example to denigrate the quality of education received at a community college. I say this because all of us involved in teacher education at four-year institutions are well aware of how one example such as this can be taken as representative of an entire program or profession and how it can influence the public, legislators and policy makers. It doesn't help when we learn that a community college in California is going on-line with a teacher certification program next semester. Virtual student teaching?? Working closely together with our colleagues at community colleges will increase the articulation and smooth transition that must occur for our students to be well prepared for the classroom.

The second reason is purely political. At least in our state, there is a community college in every legislative district. There is not a four-year institution of higher education in every legislative district. Sanders warned that failure to collaborate with community colleges in teacher education would most likely result in four year institutions emerging as the big loser in this arena.

The interesting dichotomy that arises with alternative programs is that while legislators and policy makers are upgrading the quality of "standard" or "traditional" students entering teacher education programs by raising admission standards; they are at the same time advocating temporary licenses or alternative route programs with reduced standards. It is imperative that additional research be conducted on the effects of both traditional and alternative programs. There are such a myriad of approaches to alternative certification that we may find that some produce outstanding teacher candidates while others produce teachers who are not effective in the classroom. William Sanders' research has made it all too clear as to the negative ramifications on pupil progress of an ineffective teacher. Our programs and our schools cannot be in the business of committing educational child abuse simply so we can fill classrooms with a warm body.

Earlier I had mentioned that I believed that the trend of alternative programs or delivery systems was linked to the trend of supply and demand. A major rationale for advocating these alternatives is to fill the supposed vast numbers of unfilled classrooms across the country. Why else would we consider delivering a teacher education program over a

summer or on-line? Most articles describing the involvement of community colleges in the preparation of teachers at the undergraduate level include the rationale of needing to prepare additional teachers to meet the teacher shortage.

I don't think you can argue that there is no teacher shortage. At issue is how pervasive is the teacher shortage, where does it exist, what academic areas are impacted by it, and what is its cause? A recent article from the National Teacher Recruitment Clearinghouse explains that the demand for teachers varies widely from region to region and across curriculum disciplines, but that there are several geographic and subject areas that consistently report a high need for qualified teachers (2001). It goes on to say that the scarcity of qualified teachers, especially in urban and rural public schools, has led to a situation in which the nation's most challenging classrooms get the least qualified teachers. They stated that the areas of need are in bilingual education/English as a Second Language, special education, and math and science.

Another study conducted by the Center for School Change at the University of Minnesota reports looming teacher shortages in the physical sciences, math, industrial arts and home economics (1999). It reported that many teachers are interested in teaching social studies/history and English. The report also describes an on-line jobsite being used to recruit teachers to Minnesota schools.

In 1998, Emily Feistritzer published an article in *The Wall Street Journal* entitled, *The Truth Behind the Teacher Shortage*. She discusses the claim that we will need millions of "new" teachers per decade. When most people hear the words, "new teachers," they assume it means those who have never taught before and have just graduated from college. In fact, that is not what it means.

An NCES study of the 139,000 "new" public school teachers hired during the 1992-93 school year revealed that only 42% of the "new" teachers had just finished college and had never taught before. Twenty-four percent were doing something other than going to college the year before teaching but were teaching for the first time. The remaining 34% of "new" teachers were actually former teachers coming back into the profession. Feistritzer also reported that a study by the National Education Association on the 1995-96 academic year indicated that only 2.1% of the 2.2 million people working as teachers were teaching for the first time. Thus the nation is hiring—and is projected to need to hire—approximately 45,000 newly trained teachers per year. A far cry from the 200,000 the "crisis" proponents would have us believe.

One might wonder how the teacher shortage has anything to do with teacher education. Any person involved in the administration of a teacher education program is well aware of the pressure being put on our programs by policy makers, legislators, the media and the public to develop and

implement programs that will put larger numbers of teachers in to the classrooms at a faster pace than the traditional approach. We are also well aware of the growing competition that we are beginning to face regarding our programs.

As educators, we must have a better understanding of the so-called "teacher shortage." First, we must understand that the teacher shortage does not exist everywhere or in every subject area. I guarantee that if Southern Illinois University Carbondale greatly increased our output of novice teachers, we would have little, if any, impact on the teacher shortages in the urban schools of Illinois. I am not convinced that we would have a major impact on our poor rural districts either. We cannot control where our students go to teach and, like anybody else, they are going to be attracted to better working conditions and higher pay.

Perhaps more importantly, we need to examine the existing conditions that have created shortages in certain demographic areas and in specific subject areas. If the conditions that have created a teacher shortage—other than a booming population—continue to exist, we will simply perpetuate a shortage because "new" teachers will shortly leave those schools for those with better working conditions. Examining these conditions and then developing long-term strategies to improve these conditions takes time and effort,—and sometimes courage. It is a challenge for all of us because if we succumb to the pressure to provide quantity, not quality, then the work of William Sanders and the foreboding impact of ineffective teachers will become too real for too many of our children.

As Feistritzer (1998) states, "to claim that there is a teacher shortage is wrong. There isn't one and there won't be a shortage anytime soon. One has to wonder about the agenda of someone who's willing to claim otherwise."

These trends of accountability, alternatives and demand are very real to us in teacher education. They are going to shape what we do and how we respond to state and national initiatives for quite awhile. But I believe that we must hold our programs, our students and ourselves accountable for the success of our graduates in promoting student learning in K-12 schools. Let others talk about quantity. We must always have quality at the top of our agenda. Our Colleges and Schools of Education must demonstrate to our various constituencies that we are seriously engaged in program transformation whose aim is an effective teacher in every classroom assuring a quality education for all children at all levels.

References

- AACTE. (2001). Initial evaluation of Teach for America released. AACTE Briefs (September 24).
- Bracey, G. W. (2001). The condition of public education. *Phi Delta Kappan*. (83)2, 157-169.

-
- Channel 4000 (1999). Study: teacher shortage looms. Retrieved October 18, 2001, from <http://www.channel4000.com/news/stories/news-990310-094702.html>
- Elmore, R. (2000). *Building a New Structure for School Leadership*. Washington DC: Albert Shanker Institute, American Federation of Teachers.
- Feistritzer, E. (1998, January 28). The truth behind the teacher shortage. *The Wall Street Journal*. Retrieved October 18, 2001, from <http://www.ncei.com/WSJ-12898.htm>
- National Teacher Recruitment Clearinghouse (2001). Teacher shortage areas. Retrieved October 18, 2001, from <http://www.recruitinhteachers.com/findjob/shortage.html>
- Paccione, A., McWhorter, B., and Richburg, R. (2000). Ten years on the fast track. In D. J. McIntyre and D. M. Byrd (Eds). *Research on Effective Models of Teacher Education* (218-234). Thousand Oaks, CA: Corwin Press.
- Sanders, W., and Rivers, J. C. (1996). Cumulative and residual effects on teachers on future academic achievement. Knoxville, TN: University of Tennessee Value-Added Research Assessment Center.
- Sanders, W. (2001). Value-Added Research. Keynote address at the Illinois Association of Colleges of Teacher Education meeting, Chicago, IL
- Shen, J. (2000). The impact of the alternative certification policy. In D. J. McIntyre and D. M. Byrd (Eds). *Research on Effective Models of Teacher Education* (235-247), Thousand Oaks, CA: Corwin Press.
- Stone, B., and Mata, S. (2000). Fast-track teacher education. In D. J. McIntyre and D. M. Byrd (Eds). *Research on Effective Models of Teacher Education* (203-217), Thousand Oaks, CA: Corwin Press.

Writing for Publication: Overcoming the Barriers that Block Us

Deborah Bainer Jenkins
State University of West Georgia

For many new academics, getting published seems like a difficult and mysterious process. It is threatening and stressful, too, because promotion and tenure are linked to publishing in respected journals. The purpose of this paper is to dispel some of the mystery and stress associated with publishing by addressing four common barriers to effective writing and publishing. We often cite these barriers as excuses for why we aren't publishing. Fortunately, each can be overcome relatively easily.

Barrier 1:

“I Don't Know Where to Submit My Manuscript.”

Too often, our writing is blocked because we don't know where to submit a manuscript. After all, a manuscript needs to be written to the audience of a particular journal, so it is important to have the journal and its readership in mind when you begin writing. The way around this barrier, then, is to *do your homework*.

Your homework begins in the periodical section of the library. Do you realize how many journals there are that are possible outlets for your writing? Spend an afternoon examining the journals. Gather information about each journal's purpose, audience, publication cycle, and themes. Copy the guidelines for manuscripts, editor's contact information, and an article representative of the journal's style. Then set up a file to have this information about target journals readily available to you. Update the information in the file at least annually and add to it as you become aware of additional journals which are potential outlets for your work.

As you identify target journals, think divergently. How can you slant your manuscript to address different audiences? A study of second graders' use of math manipulatives is obviously appropriate for a mathematics education journal, but with a different focus certain aspects of the study might also be interesting to the readership of journals in early childhood education, teacher education, and cognitive psychology. If the research was conducted in an urban setting, consider targeting urban education or multicultural journals. Finally, consider reporting the study in both research journals with academic audiences and applied journals aimed at practitioners. If you think divergently and write with specific audiences in mind, you can potentially publish various aspects of one study in three or four different journals.

And don't be afraid to aim high. Lacking confidence, inexperienced writers often target only less competitive journals with high acceptance rates. These are good outlets for many manuscripts, but if you have a strong study of national interest, submit it to a more competitive national journal. Even if the manuscript isn't accepted, you will gain valuable feedback that will make the revised manuscript stronger. As a rule of thumb, if you have a credible study to report, submit it to a leading, national journal first. If it is not accepted, try a less rigorous national journal, then a regional or state journal.

Barrier 2:

“I Don't Have Time to Write.”

Without a doubt, this is the excuse we use most often to explain our lack of publications. Remember, though, that everybody has the same amount of time. The difference between prolific writers and those who are less published is how they use that time; how much of it they carve out for writing. The way around the time barrier is to *know yourself*.

You may already be aware of your optimum work times. Do you work better in the morning, afternoon, or late at night? What environment enables you to be most productive? Some people need lots of light, loud music, and a cluttered desk. Others need soft light, a comfortable chair, and no distractions, including music. Identify when you write best, and focus on using those times and creating conditions conducive to writing.

Many people block out one day a week as their “writing day.” While this sounds good, in reality it doesn't work well for most of us. Inevitably, meetings or other distractions gradually erode that block of time. Further, it is difficult to stay focused on one project for eight hours. Experts agree that maximizing a small chunk of writing time each day is more productive, especially if it is the same time every day. For example, you might write for one hour first thing every morning. This routine provides more focused writing time and enables you to easily maintain your line of thought from one morning to the next.

No matter when you decide to write, protect your writing time. Stay at home, if possible, to avoid distractions inherent to academic offices. Schedule no meetings during that time; simply say that you are not available. Post a sign on your door: “I'm writing. Please do not disturb.” Your colleagues should respect your writing time, and you may inspire them to find more time for writing themselves.

Session F.0800.SS—Workshop presented at the annual meeting of the Mid-Western Educational Research Association, Chicago, IL Oct. 24-27, 2001.

Barrier 3:
“I’m Writing but Not Getting Anything Done.”

Some people spend a lot of time writing but have few publications to show for it. They may be working on multiple writing projects so lack the focus needed to complete any one of them. They may be perfectionists who continually rework manuscripts trying to make every word and thought just perfect. They may be buried in data and literature reviews, and confused about the next steps. All of these barriers can be overcome by *getting organized*.

Make no mistake, there are no shortcuts to good writing. Successful writing involves gaining information from a variety of sources, organizing it logically, and presenting it precisely. These processes can be done manually or with the aid of a computer. Circumventing any of these processes results in a disorganized, weak manuscript.

Copy machines have ruined many inexperienced writers. They copy dozens of articles then read and highlight important points. When the time comes to organize the ideas into a manuscript, they spread the articles out around them and try to retrieve bits of information that are related. The result is rambling, disorganized manuscripts and writers who are frustrated because they took shortcuts.

What is a better way to retrieve information and organize it? Try using 4X6-inch notecards. Start with bibliography cards. As you read articles, list the complete bibliographic reference for each source on the bibliography cards. Number each entry sequentially for later reference. Now you are ready to begin gathering information. First, draw a one-inch square in the upper left corner of each notecard. Next, begin reading and taking notes directly onto the notecards rather than highlighting the articles. If you are writing a manuscript on teacher reflection, for example, you might find a definition of reflection. Copy the definition onto the notecard, and in the left corner square, write “definition of reflection.” This note tells you what concept or information the notecard contains without having to read the card. After the definition, write the number of that source from the bibliography cards and the page number where you obtained the information. This way, you will be able to locate the original text for any notes you have on notecards. Report only one definition or bit of information on each notecard.

By the end of your literature search, you might have five notecards with definitions on them, ten with notes about the importance of reflecting, two with examples of teachers engaged in reflective practice, and three with benefits of reflecting on teaching. Putting the articles aside, look through the notecards to see the sort of information you have and additional information that you might need. Using the notes in the corner of the cards, arrange the cards into a logical outline based on the information they contain. By sorting

the cards into an outline, you can then write a well-organized paper directly from the notecards.

Designate a space where you are comfortable writing. Have ample supplies, including pencils, highlighters, notecards, staples, paper clips, folders, and scratch paper, readily available. That way you will not be distracted by searching for needed materials. Keep your work-in-progress in an easily accessible place on top of your desk or in a drawer so that you can pick it up and continue working on it without wasting time.

Barrier 4:
“I’m Waiting to Hear Back From the Journal.”

Once you have a manuscript out under review, it is not time to sit back and relax! It may take six to twelve months for the journal to respond to your manuscript. Waiting to hear creates a barrier to continued writing productivity. The way around the response barrier is to *pace yourself*.

A productive professor once shared her secret: always have one manuscript in press, one under review, and one in process. That is, while you’re waiting to hear back from a journal, begin working on another manuscript. Once this cycle is established, it provides a comfortable and productive writing pace.

It is important, too, to handle rejection productively. First, don’t take it personally. A rejected manuscript doesn’t reflect on who you are. The write-up may have been flawed, and you can fix that. The topic may not have been of interest to the journal, and you can send it somewhere else. The manuscript may have been reviewed by biased or tough reviewers. Remember, reviewers are people just like you. They aren’t perfect. They have opinions, bad days, and busy schedules that may affect how they evaluate your manuscript. Learn from reviewers. Consider their advice against what you intend the manuscript to communicate. Rework the rejected manuscript immediately and send it to another journal within two weeks. This helps you handle rejection realistically and productively and keeps your writing cycle flowing.

It is also important to know when to give up. Reviewers usually differentiate between a weak write-up and a weak study. If the write-up is weak, it can be fixed. If the study is weak or flawed, it can’t be fixed and may not be publishable. If you know that your study is flawed, don’t try to hide it. In the manuscript, address the study’s weaknesses as limitations and focus on what can be learned from the study in spite of those limitations. If the study is seriously flawed, as sad as it is to say, you may need to abandon the data. Don’t waste months trying to rework the write-up or to find another outlet. Recognize what you learned about research from the faulty study and undertake a stronger, more publishable study.

Mid-Western Educational Researcher

Call for Special Editors

The Mid-Western Educational Researcher is a scholarly journal that publishes research-based articles addressing a full range of educational issues. The journal also publishes literature reviews, theoretical and methodological discussions that make an original contribution to the research literature, book reviews, and feature columns. There are four issues of the journal published annually. The Summer issue is the program for the Annual Meeting.

Recently, the editorial advisory board recommended that the Autumn issue each year should be devoted to a special topic. Specifically, all articles in the Autumn issue should explore a topic of general interest in education and research, each focusing on a different aspect of the topic.

The journal is now seeking individuals interested in serving as special editors for the 2003 Autumn issue. In order to be considered as a special editor, please provide the following information in a 1–2 page proposal.

- 1) The special topic you wish to explore, and different viewpoints or perspectives which contributed articles may take. Include an explanation for why this is an important topic for the journal to explore and why it would appeal to the readership.
- 2) How you plan to solicit manuscripts for the issue. If you expect to invite manuscripts, from whom will the manuscripts be solicited? Do you expect to run a call for manuscripts in an issue of the journal?
- 3) Your background experience in authoring educational research and in editing, reviewing, and publishing journal manuscripts.

Each special issue should contain 40 typeset pages of copy, or about 6-8 manuscripts depending on length. Final manuscripts should be submitted to the editorial team in hard copy and on disk no later than July 15 of the year of publication for processing and printing.

The editorial team, in conjunction with the incoming editors, will make final decisions on the appointment of special editors. Questions regarding the journal or the roles of the special editor should be directed to the current editors.

Mary K. Bendixen-Noe (740) 366-9469
e-mail: Bendixen-Noe.1@osu.edu

Kim Metcalf (812) 855-4438
e-mail: kmetcalf@indiana.edu



The Ohio State University
2500 Kenny Road
Columbus, Ohio 43210

Nonprofit Org.
U.S. Postage
PAID
Columbus, Ohio
Permit No. 711