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## ABSTRACT

This essay discusses professional development as a capacity-building strategy. It raises questions about various approaches to capacity building, including the emphasis on professional development. It states that despite self-reports and surveys, scant, if any, replicable empirical evidence relates professional development to changes in teacher behavior and improved student outcomes. The paper calls for educators to critique the assumptions and assertions behind the call for professional development and offers some available scientifically based research approaches to education improvement. The paper goes on to support more scientifically based research in education and presents a new model for professional development based on scientifically based research. Included are: a sample of studies that support professional development, but fail to find empirical evidence of teacher change or student improvement and appendices that contain: a glossary of terms, a checklist for staff development, a survey instrument used to collect data on research-based information that improves student outcomes, and a six-level phase model to help policymakers and practitioners sort the issues in educational research; and 30 references. (WFA)

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# Education Administration (EdAd) and Capacity for School Improvement: Restructuring Public Education.

C. M. Achilles

April 2003

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EDUCATION ADMINISTRATION (EDAD) AND CAPACITY  
FOR SCHOOL IMPROVEMENT

RESTRUCTURING PUBLIC EDUCATION

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EDUCATION ADMINISTRATION (EDAD) AND CAPACITY FOR SCHOOL IMPROVEMENT.<sup>1</sup>

## Thoughts About Education Administration And Improvement

We've all heard it: "Think out of the box". This adjuration accompanies most any serious consideration of education improvement. If "the box" is so debilitating that we must always think out of it to improve, it is time to think seriously about the box. My often contrarian ideas about education administration (Ed Ad) have usually been met with polite "Ho Hum." Now, I've added a strange ally to my constant call for EdAd to focus on schools and make schools better places for kids. The ally is scientifically based research (SBR): The "strange" is that SBR is, in my mind, about the only useful part of the No Child Left Behind (NCLB) Act.

Since 1967, I've collected bits and pieces about Ed Ad specifically and education improvement efforts in general trying to determine why, over the years, education reform has been cyclical and mostly stagnant. So here's one more research-based challenge to traditional shibboleths. The task of explaining these views about school improvement, EdAd, and SBR seems as daunting as explaining three dimensions to a native of Flatland. (Abbott, 1952)

The snare is set early and easily. Capacity building is one process for education improvement. Calls for professional development (PD) or staff development (SD) or inservice programs (etc.) are usually high on the list of capacity-building stratagems. In a field whose core business includes instruction and in which many practitioners hold titles such as staff developer or human resource consultant, calls for more PD or SD as a primary capacity-building tool for improvement are seldom questioned. Many professors have an

inservice moonlighting business that may expand dramatically with the 2001 reauthorization of the Elementary and Secondary Education Act of 1965 (PL 89-10), mislabeled as the No Child Left Behind (NCLB) Act<sup>2</sup> which recommends lots of SD and funds it through Title II.

The NCLB is, ironically, the same act that describes “scientifically based research” (or SBR) and mentions more than 100 times SBR and the need to base education improvement on SBR results (e.g., Slavin, 2002; Feuer, Towne & Shavelson, 2002). This paper offers a view contrary to most NCLB pronouncements, excepting the call for SBR as a cornerstone for education improvement.

The idea is formulated as a problem in a discrepancy model, showing dissonance between the present empirical state and some desired normative condition (Achilles, et al., 1997; Haller & Kleine, 2001). The unsupported aura of education failure is pervasive so any proposed solution is potentially contentious. A problem, however, allows for analysis and consideration of possible solutions that are administratively mutable: Competent people can do something and assess the changes.

### The Problem

The constant focus upon “Professional Development” or PD, nearly to the exclusion of other improvement strategies has derailed education improvement. This focus wrongly blames teachers and (indirectly) teacher preparation for presumed education deficiencies and shields other possible causes. DISCLAIMER: This paper is not an attack on PD, but it does raise questions about various approaches to capacity building.

Definitions are important in research and in discourse. Key terms are defined in Appendix A, Glossary. PD as used here excludes advanced degree work. However, an

unpopular study by Haller, Brent, and McNamara (1997) called into question the value of advanced preparation in Ed Ad if preparation is continued in traditional ways.

Selected Examples and Empirical Evidence. Teachers seldom clamor for more “Professional Development” or PD. Regardless of self-reports and surveys, scant, if any, replicable, empirical evidence (SBR) relates PD to a) changes in teacher behavior and b) improved student outcomes. Many articles and ideas for improvement perpetuate PD with unsupported assertions that PD is required. However, many studies that have demonstrated improved outcomes and included and assessed a PD component [e.g. Student Teacher Achievement Ratio or STAR (Achilles, 1999), class-size reduction or CSR in California, and other class-size studies] do not find observable teacher changes even if teachers self-report them. The absence of such a finding is particularly notable in relation to organization changes, such as class size, that do provide replicable student gains. In summary, PD has received huge expenditures of time, funds, and effort: PD is touted in NCLB that argues for scientifically based research or SBR. One would expect demonstrable, replicable SBR evidence of successes as a base for the NCLB support of PD, but none is presented. The depth and ubiquity of the problem are evident in the question: “Can you provide two or more high quality, replicable, empirical studies (SBR) of the positive effects of PD on teacher behavior and especially of its effects on student short and long-term success as usually measured?” Table 1 offers some support for the empirical claim.

TABLE 1 ABOUT HERE
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Normative Claim. The continuing and probable NCLB-driven large investments of time, funds, and efforts in PD should both be based upon and provide SBR evidence of

changed teaching that can be linked directly to improvements in student outcomes. A yawning abyss exists between the available empirical evidence and the normative claim.

The problem seems to have two dimensions: 1) To find an answer to the compound question presented above through both an extensive interpretive research review and conducting such SBR studies, or 2) To answer the question, “Why does there seem to be minimal or no evidence that PD has the anticipated demonstrable effects?” A third, and more controversial possibility is presented here. Critique the assumptions and assertions behind the omnipresent and SBR unsubstantiated call for PD and offer some available SBR approaches to education improvement.

### Logic for and Challenge to Staff Development As Presently Done for Capacity Building<sup>3</sup>

Constantly renewing one’s knowledge, skills, and attitudes requires personal and professional attention. In some fields (e.g., medicine, dentistry, CPAs) the impetus for PD comes from and is primarily supported by the person. In education, however, SD and PD are often mandated with specific days in the school calendar allocated as part of the educator’s work year. Typically, students do not attend school on these days.

A huge commodification for PD has emerged, with a deeply embedded infrastructure, often manifest as entire departments in central offices dedicated to PD and Human Resources, and featuring PD experts in any fad. PD is driven by a national organization, a thriving textbook market, cadres of staff developers, and hordes of special projects—many untested and unproven as to student benefits. Some projects promise to address any actual or perceived need—but only after the project’s developer has given potential users ample

inservice exposure. Federal, state, and local funds fuel much PD that seems top-heavy and out-of-balance when assessed against three criteria.

1. Those who receive the PD will demonstrate positive change in skills, knowledge, attitudes, and behaviors.
2. The desired changes and improvements should be measurable and observable in the short term and in the long term: They become the norm until better knowledge skills (etc.) are available.
3. Because the ultimate beneficiary of PD should include the clients (i.e., students) the results of PD should lead directly to observable, measurable positive change in student outcomes on clearly defined criteria.

Although the National Staff Development Council has advanced the knowledge about and sophistication surrounding PD (e.g., Sparks & Loucks-Horsley, 1989; Showers & Joyce, 1996; Wood & McQuarrie, 1999; Wood & Thompson, 1993), many questions still require answers. Before they continue to accept the value of PD as capacity building and to invest heavily in it—policy persons should require data to support the investment. The time is long past when those who assert that PD improves teaching, and ultimately student performance should provide replicable evidence to support their claims. While waiting for PD evidence, its time for action using SBR evidence.

#### Consider One SBR Alternative: Change The Box

Sparks (1993) noted that “...quality improvement expert W. Edwards Deming estimates that 85% of barriers to improvement reside in the organization’s structure and processes, not in the performance of individuals” (p.3). Intriguing. Think about it. If this is correct, then PD for workers could only get at 15% of the barriers to improvement even if the PD were 100% successful (improbable)! Now is the time not just to “think out of the box” (e.g., to tinker with PD), but to change the box. Improve the organization for education as a SBR approach to capacity building.



In his last years, Deming revised his 85 – 15 estimate of the problem. With the help of graduate students, I pursued this idea. On December 5, 1993 the front page of the Business Section of the Los Angeles Times ran an article quoting Deming at a southern California seminar, “All that happens comes from the system, not the workers. It’s absolutely frightening, just frightening.” This idea appears in Deming’s (1993) book, The New Economics (Second edition, 2000): “In my experience, most troubles and most possibilities for improvement add up to proportions something like this:

94% belong to the system (the responsibility of management)

6% are attributable to special causes...

No amount of care or skill in workmanship can overcome fundamental faults of the system”

(pp. 33-34). If Deming is correct . . . ?

Scenario. Pat’s pre-service teacher preparation included training in running records (RR) to assess and assist beginning readers and appropriate use of portfolios as a way to monitor student-growth. Pat demonstrated solid knowledge of these skills and used them satisfactorily in student teaching, usually while the regular teacher helped students with whom Pat was not working. The classroom teacher praised Pat’s work.

After employment, Pat’s first-grade class, like others in the building had 29 students considered “about average” with a couple of “included” students. Pat’s plans called for RR (each child observed weekly), portfolio assessment that would involve parents, and individualized work emphasizing “the basics” of language and numbers.

Pat soon found that there was not time for RR and portfolios. These and other skills learned in teacher preparation soon faded in favor of large-group instruction, rote, testing, worksheets, and classroom management: Pat learned crowd control. Colleagues told Pat to “forget college idealism.” “Welcome to the real world.”

An esteemed district supervisor returned from a conference enthusiastic about RR and sold the idea to the administrative council, which mandated RR training for all K-3 teachers. Pat dutifully attended 20 hours of training and demonstrated the use of RR, including diagnosing a student’s needs and re-teaching. When the supervisor conducted a follow-up visit, she wrote an unfavorable observation indicating Pat’s non-use of RR, a “scene” repeated in other K-3 classrooms. The supervisor reported to the administrative council: “We brought the K-3 teachers the most up-to-date tools, and even after extensive PD with follow-up, the teachers won’t use what we required. No wonder we can’t improve!”

Unfortunately, the above scenario is not uncommon. More unfortunately, there are great alternatives. Administrators seem not to know them or to try them.

### One Capacity for School Improvement

Given a) W. Edwards Deming's claim that problems in organizations are directly connected to an organization's structure and management (85%-94%) and that only a few are related to personnel (workers), b) the continuing pervasive finding of little demonstrable student gain or teacher change from PD, and c) an espoused interest for improving education, it is time to stop exhorting people to "think out of the box" to improve education. If it is the box, change the box. Start by making organization adjustments aligned with the findings of "good" research (SBR). Changes should be in concert with useful, time-tested theories and consensually validated exemplary practices or informed professional judgment (IPJ) of outstanding teachers.

The evolving list in Table 2 awaits additions of SBR (demonstrated) "things" that advance the efficiency and effectiveness of EdAd, improve schooling outcomes for students and that evaluate, expand, and advance the field's knowledge base. Exclude "Programs" that are for sale unless they meet SBR, theory, and IPJ tests. Additions to the list should be products of SBR, of theory, and of IPJ; be administratively mutable; and improve student achievement in at least four categories: The A, B, C, D's or Abecedarian Compact: (Achilles, 1999) is similar to Comer's desiderata for school as described by Haynes and Emmons (1997). Student achievement is positive in:

Academics, as shown by test scores and other indicators

Behavior and discipline in and out of school

Citizenship and participation in and outside of school

Development into productive, contributing, humane adults with constructive self-concepts

The emerging list in Table 2 offers SBR-supported education-improvement ideas. According to Deming's theory, administrators are responsible for these changes.

Appendix B offers a summary of points presented here.

TABLE 2 ABOUT HERE
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### A New Model for Professional Development

Educators often claim that education is a profession similar to law, medicine, clergy, etc. Not to know SBR and replicable, empirical evidence of ways to improve the field while relying nearly exclusively on as-yet unsubstantiated traditions would seem to defy "professionalism." How do Deming's ideas hold up in a profession such as medicine, a field that does not have state-mandated PD or inservice days?

The New York Times Magazine (March 16, 2003) carried a series on medicine and medical education. One MD (Sanders, 2003) reflected on the Dean at her medical school saying "... half of what we teach you here is wrong—unfortunately, we don't know which half" (p. 29). Another MD noted: "A 1999 Institute of Medicine report estimated that 98,000 deaths occur in the United States every year because of medical errors. Most of these deaths, the report said, do not occur because of individual mistakes but because of flaws in the way hospitals and clinics operate" (Jauhar, 2003 p. 35). Citing a tragic transplant issue, the doctor reported that "the fault was not in any one individual but rather in the structure of care. . ." (p. 35). Later in the same series Burton (2003) noted that "Five percent of doctors are said to be responsible for more than half of malpractice post-trial payouts" (p. 48). The

medicine scenario sounds eerily like the Deming 85%-94% contention and the present arguments against PD as the primary way to “improve” education outcomes.

Because it is important for professionals to sharpen old skills and learn new knowledge and skills, PD is needed. It will assume a secondary but professional stance. Because of the dearth of SBR evidence that PD provides teacher change and student improvements in education, PD should follow the model set by fields such as medicine and law and rely on user (e.g., teacher) choice in a market model: Teachers will select their PD needs and delivery system. They will pay for PD directly to the provider. There will be minimum state or district payout for “mandated” SD days, although there may be required inservice days to implement policy or legal mandates. The PD timeframe would usually occur so that practitioners do not lose time instructing the students for whom they are responsible. Administrators, not teachers, will receive PD that demonstrates SBR organization change that fosters school improvement.

With the crutch of “more PD” removed, principals—the administrators and top management of schools—now become responsible for much of Deming’s 85%-94% of the barriers to improvement. (Did the call for PD and its easy out for principals derail the organization idea of school restructuring?). The non-principal portion of the 85%-94% rests with administrative levels above the school: district, state, federal. What a Pandora’s Box this promises to be.

Examples of teachers successfully improving their practice in demonstrable ways reflect the processes of staff reviews of difficult medical issues (teacher conversations about teaching, teacher study groups, etc.); they sound not at all like producer-driven “inservice

sessions” or SD mandated by bureaucrats (who don’t attend them), paid for by public funds, mocked by teachers, and that take teachers from classrooms.

### Denouement: Bits and Pieces of a Kaleidoscope

Preparation. Education occurs mostly in schools so the practice of education reform starts there. Programs that prepare principals will need to be grounded in SBR principles. Programs should assure that principals-in-waiting can assess against SBR standards and theory the claims made for research and products built upon the research. The EdAd students must be comfortable in the habit and practice of critique: What is “good” research? How do competing claims stack up? How can educators use (implement) and assess the research? Curricula and testing in EdAd preparation would include knowledge of SBR results that help students, critical thinking and critique skills, action research and evaluation methods.

This preparation component reflects part of the “what” leg of the triad of things a competent EdAd person must know: What to do (e.g., the foundational education knowledge), How to get the what done (Leadership), and Why (moral, legal, policy, ethical reasons) something should or should not be done. [See Achilles, C. M. & Price, W. J. (2001, Winter), “What is missing in the current debate about education administration standards.” AASA Professor, 24 (2), 8-14]. These three categories (What, How, Why) are logical ways to classify, deliver, and evaluate EdAd preparation and performance.

To advance the field beyond the morass its critics claim for education and EdAd, many levels of action are required. A first step—perhaps the most difficult—is to seek consensus on the potential of SBR outcomes to help improve schooling and to establish some

priority for their use. Next, this consensus must be communicated clearly and carefully within the education community and to the involved publics: parents, citizens, policy persons, politicians. Clear communication will help restore public confidence in public education as a foundation institution of society, like health and religion.

These steps will exude a clarity of purpose in the application of student-centered, consensus-driven education improvement steps built upon valid knowledge sharpened by the habit of professional critique. (Try to make rationale what has become unraveled in recent years with the attack on public education.) Schools and children certainly are not the sole responsible agents for social action to address such challenges as poverty, diversity, and economic decline that fill the media. Educators' primary focus is helping mostly young clients who don't yet vote obtain the knowledge, civility, and skills to become "solid citizens" capable of informed, ethical action in social settings.

As characteristics of the clients change, education must adapt and society must acknowledge the changes. (Achilles & Mitchel, 2001). Armed with certitude about the validity of knowledge underlying education, EdAd persons must build the capacity to communicate clearly what actions they plan to take, how they will proceed, and why the selected actions are required and fitting. Focused research, judicious trials and evaluations, and rigorous professional critique will replace fads, quick fixes, and expediency that presently clutter the path of education improvement. These steps won't be easy.

Educators have not scored well recently when given opportunities to apply research to guide education improvement. Consider two examples dealing with class size. The California CSR was a textbook example of good intentions implemented totally contrary to the extensive research. Florida voters (2002) approved a Constitutional Amendment for

class-size adjustments that the Florida Association of District School Superintendents (FADSS!) opposed in a formal “white paper” (8/02). When faced with implementing the mandated small classes, the administrators supported politically expedient “Pupil-Teacher Ratio” or (PTR) steps that research has shown do not improve overall schooling outcomes; legislators recessed without acting on the amendment.

Standards for admission to EdAd and for preparation of those admitted need attention. After reviewing the trend of decline in one measure of cognitive ability of EA candidates (the GRE), Keedy and Achilles (2001) mused about the source of the intellectual firepower needed for EdAd’s next challenges. Those circling the wagons around present preparation programs might heed medicine’s humility: “Half of what we teach you’re here is wrong—unfortunately, we don’t know which half” (Sanders, 2003, p. 29). We (EdAd) might consider checking this idea carefully using our programs of study and course syllabi. I’ve provided a couple examples in Appendices C and D.

Appendix C includes a questionnaire that I often give to practicing EdAd persons when I make presentations. I have given and reviewed more than 2000 of these. The four sheets in Appendix C are typical summaries of the responses.

Appendix D offers ways an EdAd person might assess if some “education improvement” idea meets reasonable tests of valid, reliable, replicable SBR, or if it is a fad. Each example in Appendix D (where applicable) uses as the education improvement idea the considerable research on class size. Remember: Ask a person promulgating a program, “Can you provide two (or more) empirical, replicable (SBR) independent studies that show positive short and long-term improvements (A, B, C, D) for student outcomes?” Enjoy!

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Table 1. Sample of Studies that Support Professional Development (PD) but Fail to Find Empirical Evidence of Teacher Change or Student-Improvement Gains.

<u>Source/Focus/Design</u>	<u>Design/Outcome/Quote</u>
Guskey, T. R. (1997)	“Research needs to link PD and student learning.”
Haller, Brent & McNamara (1997) Advanced training in EdAd.	No measurable difference on “Effective Schools” indicators of advanced training.
Carpenter (2000) reviewed school reform efforts (1990-2000).	PD (and other reforms) have had little impact on student achievement or on school improvement.
Newmann et al. <u>AERJ</u> (2000) and <u>American J. of Education</u> . Broadly theoretic and conceptual paper. School capacity focus.	“The case for substantial investment in [PD] is vulnerable because of an absence of research that links specific forms of [PD] to changes in teacher learning and practice and to student achievement gains. . .” (p. 53).
Garet et al. <u>AERJ</u> (2001). Focus on teacher learning.	National probability sample (n=1027). Teacher self-reported info. on a survey. No evidence of student gains.
Covert, S. (2003) Review of research for a dissertation on PD. (E. Michigan U.)	“Given the lack of studies which demonstrate PD effects on teachers or student outcomes. . .” (p. 25). Argues for attention to theory to guide PD.
Tienken, C. (2003). Review of research for a dissertation on PD (Seton Hall University).	Minimal evidence of PD changing teacher behavior or student achievement. Job-embedded PD seems promising.
Guskey, T. R. (2003). Review of 13 lists of “effective PD.”	“But that research includes rigorous investigations of (PD) and improvements in instructional practice or student outcomes.” (p. 749)

Table 2. An Emerging List of SBR Results that Influence Schooling Outcomes Positively on the ABCD Dimensions: Change the Box

Instructions: "Brainstorm" ideas onto the list. Refine them later. Provide a source (i.e., author, study) or research for an idea (e.g. class size, K-3 Project STAR). Estimate cost as high, moderate, medium, or low. (References available).

A. Organization, Not PD

1. Appropriate-size learning groups for the task. Class size, if the class is the unit of organization for instruction. STAR, K-3; SAGE; Many Studies. (Achilles; 1999). Low cost if done in accordance with the research.
2. Attention to school size (K. Cotton, Fowler & Walberg, V. Lee), such as Learning Communities, Academies, School Within A School, etc. (Low Cost)
3. Tutoring (Bloom's 1984 2-Sigma problem) (Reading Recovery) (High Cost)
4. Transitions (Elementary-Mid/Mid-HS). (Low/Moderate Costs). (See also #2, 17) (J. King-Rice, S. H. Achilles, M. Wilson,)
5. Retention in grade (Harvey; STAR; Holmes & Matthews, Shepard & Smith; etc.) (Low costs). Actually a considerable cost savings if reduced).
6. Non-graded or multi-graded schools (especially work in Australia; Pavan; Goodlad & Anderson); (Low cost). See #7.
7. Multi-age (Australian studies: Pavan; Goodlad, & Anderson) (Low Cost) See #6.
8. Quality Pre-K (Perry Pre-School and its longitudinal findings.) (Moderate/High cost but positive, cost-effective returns if well done). (Barnett, Head Start, Schweinhart & Weikart)
9. Cohorts, The Cohort Effect: Most research is on adults. STAR. Morrill (2003) (Low to no cost).
10. Looping. Little solid data yet, but small studies. (Low cost). See #6, 7, 11.
11. The Class Teacher (Denmark). See Morrill, Kappan, Feb. 03, (Low cost, high outcome) (A type of looping).
12. "Hands-on" learning opportunities (Use of time and space). (Low cost).
13. Use of Time in Schools (National Commission on Time and Learning, 1994; Goodlad, 1984; Time on Task Studies). (Low cost). Recapture wasted time in schools: "Prisoners of Time".

14. Participation (Cooperation, Involvement, Engagement etc.) (Finn; Voelkl; Rumberger; Lindsey). STAR. (Moderate/Low cost).
15. Relationships (J. Comer, et al.) (Moderate/High costs, depending on methods).
16. Herzberg's "Motivators"; "Motivation" Research (Maslow, Herzberg) (Costs?)
17. Effective Schools (Edmonds, Lezotte, etc.) (Low/Moderate costs)
18. "Community/Family" (Bateman, Small-class Research, etc.) (Low costs)
19. Coherence (Newmann, Bryk, et al.), Seamless In-class Transitions (SSS). (Low costs)
20. Use of Teacher Assistants (Para-pro): (Gerber, et al., Finn, et al., Achilles, STAR "Sense" Papers, Haberman, Title I (Minimum time and use in classrooms). (Low cost or cost savings).
21. "Structures" Studies: (Hoy, Sweetland). (Low/Moderate costs).
22. Capacity Building. Spillane, others. (Low cost).
23. Theories of Practice: (Keedy & Achilles). (Low or no cost).
24. Cooperative Learning (Slavin; Johnson & Johnson, etc.). (Low/Moderate costs).
25. Facilities, Air Quality, "Sick Building" Syndrome. (J. Prout). (Cost could be high).
26. Ways to address Student Mobility (e.g., migrants, etc.) (Costs?)
27. Full-Day Kindergarten (in a small class). (STAR, "Test Score Value of K"; Barnett's work with head Start). (Moderate/Medium Cost, but cost effective) See Slavin, Wasik, etc. Early Prevention of School Failure, Head Start Studies, Krueger.
28. Delivery Model (Planned, Coherent vs. Fragmented, "Pull-Out") (STAR, SSS, Newmann et al., B. Taylor in CMA Monograph, and notes to AASA (2003) pages 4-5) (See Title I Critique) (Low/Moderate costs).
29. Parent/Community Involvement. (Epstein, Hoover-Dempsey, Ho & Willms, etc.) (Low cost).
30. Teacher Use. Teaching, Redeployment, The National Commission on Teaching (D. Hammond, 1968, p.6), Sharp (2002).
  - High quality, qualified teacher in every classroom;
  - What teachers *know* and *can do* is one of the most important influences on what students learn....

- School reform cannot succeed unless it focuses on creating the conditions in which teachers can teach and teach well. (*Emphasis Added*). (Cost?)
31. Reconfigurations of Time in School: Block, Copernican, Year-around, Extended day and/or year. Canady & Rettig; Carroll. (Moderate Cost).

B. Curricular and Instructional Issues Supported by Organization Changes

- Developmentally Appropriate Schooling (Piaget; Feuerstein; Vygotsky; Dewey; Perry Pre-School))
- Homework, Appropriate uses of: (Cooper, H.) (Low cost)
- Teaching/Learning styles (Dunn & Dunn; Campbell; Gardner) (Low cost).
- Problem-Based Learning; Projects, Service and Community Learning. (Low cost).

C. Personnel Focus (New PD Forms)

- Job-Embedded PD (Tienken, 2003; Caufield-Sloan, 2001). Low cost.
- Teacher “Conversation” (See Author note 3). Low cost.

## Appendix A

### Glossary of Important Terms \*

Inservice Training refers to one-time or short-term training, usually a specific workshop or large-group session to present information or a basic skill, easily learned, usually delivered primarily via one-way communication. The training may include job-embedded elements, but there typically is no follow-up.

Job-Embedded Staff or Professional Development is planned and continuous training that in education specifically emphasizes teaching or instruction skills and knowledge related to student outcomes. Examples include action research and evaluation, structured study groups, peer coaching, mentoring.

Professional Development (PD) is on-going, planned, continuing education through which certified, qualified teachers and other education professionals improve skills, knowledge, and attitudes/dispositions related to assisting clients (e.g., students) achieve goals of the organization (i.e., improved student performance and outcomes). A primary interest is to improve the professional's long-term value in workplace performance. Interaction and two-way communication are an integral part of the long-term effort. PD (as distinct from personal improvement) should have at least two levels of observable, measurable, impact: 1) to improve the participant's observed professional practice when measured against stated criteria, and 2) to influence positively the achievement of students when measured against desired outcomes. The new professional practice will be sustained as part of the professional's armamentarium.

PD, as defined here, excludes planned formal advanced work, such as for a degree or to add certification. Experience, a type of on-the-job training (OJT) is also excluded here as PD.

Staff Development (SD) involves workshops, training and knowledge related to the workplace, and offered to both professional and support personnel. The focus may not be on classroom performance but rather on personal and job-related topics of interest and value to staff and to organization maintenance or health (e.g., retirement planning, first aid, diversity training, conflict resolution, policies/procedures related to law, etc.).

---

\* These definitions are adapted from operational definitions used in two recent EdD dissertations: Covert, (2003) pp. 16-17 and Tienken, (2003) pp. 14-15. In both studies the researchers explained the connection of PD to observed changes in teacher behavior. Tienken connected the job-embedded work to measured student improvement in writing (experimental design); Covert sought to determine if any changes in teacher behavior persisted at least a full year (time-series design) in use of running records.

## Appendix B

### A Myopia Check for Staff Development (SD)\*

Sparks (1995) suggested a need for a “paradigm shift” in SD. Sparks listed three forces driving the shift: Results-driven education (learning vs. teaching); systems thinking (inter-relatedness); and constructivism (competing with logical positivism) (p. 2). “While the knowledge, skills and attitudes of individuals must continually be addressed, quality improvement expert W. Edwards Deming estimates that 85% of barriers to improvement reside in the organization’s structure and processes, not in the performance of individuals” (p. 3). [In later years, Deming (1993, pp. 25-34) adjusted this estimate to 94% - 6%.]

If 85% or more of barriers to improvement are in the organization, and only 15% or fewer reside in the performance of individuals, educators might attend to the organization, and especially to those elements that have been shown through SBR research to have significant effects on student outcomes. Improvements in student outcomes include achievement in four areas, the Abecedarian Compact or A, B, C, D’s: Academics, Behavior and discipline, Citizenship and participation, Development into competent, productive adults.

To a school administrator, 85%-94% should seem like a better bet for action than 6%-15%. What, might educators consider as a first step in getting school reform on track to make schools better places for kids? A few research-based ideas appear here; others are provided in Table 2.

- 
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Class Size</li> <li>• School Size</li> <li>• Use of Time</li> <li>• Grade Retention</li> </ul> | <ul style="list-style-type: none"> <li>• Transitions</li> <li>• Individualize Instruction</li> <li>• Looping, Cohorts</li> <li>• Grade Levels</li> </ul> |
|---|--|

The 15% is important, of course, because of the labor-intensive nature of Education and the need for continuing renewal. Yet, the 85% seems to be the place for the intense work. The message of this paper is that we should change the organization, the context for education, and de-emphasize the PD tunnel vision, the purpose of which seems to blame teachers, sell projects, pay consultants, etc. rather than to improve the organization and student outcomes.

---

\* Those with “Projects” and training to sell will offer vested-interested denials of this position. If SD were 100% effective (wishful-thinking) it could address 15% or less of the problem that PD’s advocates claim exists.

Appendix C

Knowledge Survey of Research-Based Student-Outcome Practices (K-12)

I'm collecting information for a paper. Data and results will be anonymous. Your completion of the survey is completely voluntary. Please return the material to the person who distributes it or directly to: C. M. Achilles, 304 Porter Ed. Bldg., EMU, Ypsilanti, MI 48197.

A. Please list key research-based information or concepts that improve student outcomes in schooling that you have been taught directly in any of your formal Educational Administration (EA) program courses at the Masters, Ed.S., or Ed.D. levels. (Not in-service efforts, or on-the-job training.) Criteria for including the information here:

- a - Research based
- b - Improved student outcomes
- c - Taught in formal EA classes, not in-service sessions

1. Elementary Level (K-8 or so)      2. Secondary Level (8-12 or so)

<u>Concept</u>	<u>Concept</u>
<input type="checkbox"/> A	<input type="checkbox"/> A
<input type="checkbox"/> B	<input type="checkbox"/> B
<input type="checkbox"/> C	<input type="checkbox"/> C
<input type="checkbox"/> D	<input type="checkbox"/> D
<input type="checkbox"/> E	<input type="checkbox"/> E
<input type="checkbox"/> F	<input type="checkbox"/> F

Approx N = 1000  
From 2000-2003

Modal Response  
"NONE" or  
Nothing, etc

B. If you were also taught directly HOW to do any of the concepts you entered into question 1 or/and 2 above, please mark that item with a check (x) in the space at the left of your entry.

C. Identifier Information

1. Your EA program level: Masters; Ed.S., Doctoral (please circle one).
2. State: \_\_\_\_\_
3. Years experience in EA  $\bar{X} = 6 \text{ out of } 8$

Thank you.

D. If you are interested in the results.  
Complete this last item.

Name: \_\_\_\_\_ Address: \_\_\_\_\_

Date: \_\_\_\_\_



## A Six-Level Phase Model to Guide Practitioners

Care is required in selecting options for education policy especially if the research for education is conducted by persons from other disciplines that may have criteria for acceptance and publication different from those in education. The points made above have been combined into a six-level model to help policy persons and practitioners sort the issues into valid and invalid claims based upon reasonable criteria. The serious task of educating America's youth requires more than faked data being called "valid" by the sound-byte media.

Level I. The base for intelligible research is clarity of definition. Before considering using "research" ideas, carefully evaluate the definition of terms to assure that the "research" base is accurate. Check its fidelity to the policy or program being considered. All reputable research should have a section on definitions, and the research and data should relate explicitly to the defined terms.

Level II. Assess research and results against established criteria, such as Crane (1998): a) Benefits outweigh costs? b) Statistically significant effect? c) Magnitude and longevity of the effect? d) Relationship of evaluator to the project? e) Replicability? f) Maintenance of effects on larger scale, etc.?

Level III. Assure that the author(s) avoided errors that slant reviews of research. Dunkin's (1996) nine types of errors can be guidelines: 1) Unexplained selectivity, 2) Lack of discrimination, 3) Erroneous detailing, 4) Double counting, 5) Non-recognition of faulty author conclusions 6) Unwarranted attributions, 7) Suppressions of contrary findings, 8) Consequential errors, and 9) Failure to marshal evidence relevant to a generalization.

Level IV. Consider possible conflict of interests. Does the author have significant monetary or reputational stake in a specific point of view? Does the research rest, at least partially, on independent, unbiased work of reasonably disinterested persons?

Level V. Referee and ideology. Are sources used in the decision process refereed? Are the publications from a generally non-biased outlet, as distinct from ideologically driven sources? (E.g., Some think tanks).

Level VI. Synthesize and evaluate the results of Levels I-V within the local context where the policy or program is proposed. Does this make sense for you?

This six-level phase model provides a process to guide a decision. If the policy or program fails Level I, the action is over. A policy or program that has high value (potential impact) must reach a high level in the model, say Level IV or V if it is to be considered seriously. At that point, the leader should visit the primary research before making a final decision, and conduct a thorough literature review. (See also Crane, Appendix F, and Appendix G that relates STAR research to the elements of Scientifically Based Research or SBR).

### References

- Crane, J. (1998). Social programs that work (Ed). New York, NY: Russell Sage Foundation.
- Dunkin, M. J. (1996, Summer). Types of errors in synthesizing research in education. Review of Educational Research, 66 (2), 87-97.

## AUTHOR NOTES

1. C. M. Achilles, EdD is professor of education administration (EdAd) at Seton Hall University (SHU) and Eastern Michigan University (EMU) each 50% time. He has also taught EdAd since 1967 at the University of Tennessee, Knoxville, University of North Carolina at Greensboro, and part time at Nova Southeastern University. He was a principal investigator of Tennessee's STAR class-size study, other class-size studies, Project SHAL (an Effective Schools Initiative in St. Louis), and a researcher on the Phi Delta Kappa Commission on Confidence in Public Schools. He is author or co-author of numerous books, chapters, monographs, articles, research reports and ERIC entries.

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This paper is an adaptation of material submitted for publication review. Please do not distribute this paper or quote extensively from it without first contacting the author: 4477 Snug harbor, Geneva, NY 14456 (315-789-2399). <plato936@rochester.rr.com> If you use e-mail, include your mail address and phone contact.

2. Each person might add favorite NCLB aliases to this list. Entries here include suggestions I've heard or read, but cannot recall the sources. My apologies. More appropriate names than NCLB Act might be: No Child Left Act, Testing is Teaching Act, Test Publishers Employment Act, Child Unfunded Mandate Act, Suffer Little Children Act, Statistically Impossible Act, Clueless About Education Act, Forget Years of Research Act, Pay Campaign Debt Act, etc.
3. Adger, C. T. (2002, December). Professional conversation and teacher learning. Educational Researcher 31 (9), 26-28 reviews two edited volumes published by Teachers College Press that emphasize teachers behaving as professionals to improve their skills. The review is of Clark's (2001) Talking Shop: Authentic Conversation and Teacher Learning and of Lieberman and Miller's (2001) Teachers Caught in the Action: Professional Development that Matters. The task still is to link examples of changed teacher behavior to student outcomes.



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