Observing from the Inside:
Teaching and Learning in California's 20:1 Reduced-Size Classrooms

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Introduction and Framework

We often hear the call that teaching and learning must be transformed if students are to function successfully in the 21st century (Schlecty, 1990; McLaughlin & Talbert, 1993; Clinchy, 1996). But what does this really mean? Some posit that educators must adopt new visions of educational practice where teachers are no longer viewed as the "knowledge keepers" or the sole intellectual authorities. Instead, they must become guides, coaches, and facilitators who are willing to become collaborators and co-constructors of knowledge (McLaughlin & Talbert, 1993; Wilson, Miller & Yerkes, 1993). They must have a clear understanding of how children become problem solvers, critical thinkers, analysts, and questioners. In short, students must learn to become intellectual explorers through the guidance

of capable others. Although many schools are making great strides in adopting reform strategies, these newer notions are indeed a departure from some of the more traditional and pre-existing ideas of teaching and learning.

Arguably, all educators should re-examine their current practices in light of this recent research. But, due to California's 20:1 Class Size Reduction policy (SB 1771), this state in particular is currently in a unique position to re-think and possibly transform conventional pedagogies. Adopted by the California Legislature and strongly supported by Governor Pete Wilson, the Class Size Reduction Initiative was written into the 1996-97 Budget Act. Designed to improve the educational achievement of young students specifically in reading with a strong emphasis on literacy, California's primary classes were decreased to class sizes of no more than twenty students per teacher. Common sense dictates that with fewer children to instruct and with more time to devote to developing their craft, teachers now have an unusual opportunity to implement the newer strategies that have been identified as promising ways to boost students' achievement. Within this "ideal" reduced class size environment, educators now have a chance to change the face of teaching.

But, can this indeed occur? Will the political expectations to succeed create unmanageable pressures? Will all teachers have the necessary skills and training to cash in on smaller class size? And most importantly, have enough lessons been learned from teachers in other states who are experimenting with class-size reduction; have they actually achieved greater success by significantly altering their teaching pedagogies? Basically, the evidence in this area is sparse as well as controversial (Johnston, 1989; Mitchell, Carson, & Badarak, 1989); nonetheless, several studies have addressed the issue of class size, most notably an eighty-case meta-analysis of research conducted by Mary L. Smith and Gene V. Glass (1980). Although the reported statistical effects were rather small, Smith and Glass's comprehensive work suggested that reducing class size, especially when classes have fifteen or fewer students, has overall benefits "...on cognitive and affective outcomes and on the teaching process itself" (p. 432).

Another often-cited study that has become the one to which California policymakers most frequently turn is the STAR Project (Student/Teacher Achievement Ratio), a four-year longitudinal effort conducted in the late 1980s to provide data on the effects of class-size reduction in Tennessee (Finn & Achilles, 1990). This study involved more than 7,000 randomly assigned students who were grouped in three configurations—13-17 children per teacher, regular classes with 22-26 students, and regular classes assisted by instructional aides. Through data collected from this qualitative interview study involving 1,003 K, 1st, 2nd, and 3rd grade teachers who received some training in teaching smaller classes (Johnston, 1989), it was found that teachers *believed* they did a better job of teaching smaller classes. They perceived that: (1) there was more time for teaching and learning; (2) they could individualize instruction; (3) classroom management was easier; (4) classrooms were more conducive to learning; and (5) morale had improved.

However, by examining activity logs and through a small observational study connected with Project STAR, it was found that there were very few substantive differences in the way teachers taught in small as compared with regular classes (Evertson & Randolph, 1989). This led the researchers to theorize that class-size reduction alone is unlikely to fulfill its promises unless teaching practices change as well. They concluded, however, that there were indeed constraints on the degree to which practices could change because of the strict skills-based curriculum adopted by the districts and the clear expectations to adhere to the skills-oriented tasks which could have inhibited teachers from experimenting and taking risks with their instructional approaches.

To further support their findings, one principal investigator of Project STAR reports that class size did indeed make a difference in students' achievement, especially in the early primary grades (1996). Overall, STAR data revealed that "small classes ameliorate the effects of large schools; fewer students are held back a grade; while small classes benefit all students, minority students benefit the most; [and] students receive more individual attention" (Achilles, 1996, p. 77).

In relation to teaching and learning specifically, much of the reported research documents actual teaching processes based only on teacher self reports or individual interview data (Johnston, 1989). Although undoubtedly useful, one must be cautious about the validity of such information because what teachers say they do often conflicts with their actual classroom behaviors (Shapson et. al., 1980). In addition, in other studies reviewed by Glen E. Robinson and James H. Wittebols (1986), the researchers found that smaller class sizes tended to facilitate the implementation of teaching strategies that capitalized on reduced numbers of students. Nonetheless, they also concluded that reducing class size alone does not guarantee that teachers will adopt and incorporate them.

Further complicating California's efforts in this regard is the shortage of teachers which has required the state to issue emergency permits in record numbers; in many cases, these pivotal classrooms have been staffed by men and women who have had absolutely no teaching experience whatsoever. We know that this initiative largely depends on the success of ongoing classroom interactions and daily teaching and learning experiences. Will teachers, no matter what their training levels and/or expertise, be able to take advantage of the smallness of their classes? And if so, how?

The Study

In order to understand these important aspects of the class-size reduction initiative in California, this study goes beyond simple teacher self reporting and provides an in-depth description of what actually transpires in 20:1 classrooms through systematic classroom observations as well as teacher interviews. Although the findings are certainly not meant to be generalizable, they do provide a rather

unique, up close, and personal perspective on how this policy has been implemented, from the very beginning, in various classrooms.

The main questions guiding this research are:

1. What do teaching and learning (instructional strategies, students' learning behaviors) look like in 20:1 classrooms, specifically in language arts?
2. Are there differences between veteran teachers', fully trained first or second year teachers', and untrained emergency permit instructors' classrooms?
3. What are the teachers' and students' perceptions of the policy and its effects?
4. Overall, what can we learn about teaching and learning in California's reduced-size classrooms and the implications surrounding this policy after this first implementation year?

How will California compare? Will the findings be aligned with past studies or will there be differences? What additional insights can we glean from this current investigation?

Methodology

As the first year of a multi-year study, data were collected between December 1996 and May 1997 in the following ways: (1) Classroom participant/observations were undertaken in four California elementary schools in ten first or second grade classrooms with teachers who had various experience levels within one district. Six teachers were fully trained in traditional teacher education programs—four with one to two years and two veterans each with over ten years of teaching experience. Two teachers had no experience at all and simply held BA degrees and passed CBEST (California Basic Educational Skills Test). Each classroom was visited on a monthly basis for one to one-and-one-half hours, totaling approximately eighty hours of observation. All visits were generally held at the same time, during language arts (reading/writing). Depending on the classroom teacher's comfort level, participation ranged from observation only to reading with small groups of children, to individually assisting students, or to teaching the entire class. (2) All ten teachers were interviewed once formally, using a structured interview protocol, and informally at least three times. (3) Twenty-five students were also interviewed (some in small groups, most individually) to elicit their perceptions of their classrooms and their learning.

Data from participant observations and interviews were gathered in a traditional fieldnote format and coded and analyzed using Matthew B. Miles and A. Michael Huberman's (1984, 1994) method of code development and analysis. Data were searched for emerging themes, patterns, and inconsistencies as they related to the literature and research questions.

Findings

Teaching and Learning

Participant observations revealed *without question* that whole-class instruction predominated across all classrooms. In this type of setting, teachers typically explained directions for assignments or activities, led the entire group in guided reading or phonics lessons, or most often recorded student responses to a piece of literature or to their reading books on classroom chalkboards or large butcher paper sheets. These recordings often served as models or examples from which students could copy. Small group instruction was also observed where students took turns reading to the teacher, but this type of configuration was noted infrequently. Surprisingly, very little one-on-one instruction was observed. Rather, individual teacher-student interactions usually consisted of brief responses to student's questions ranging from 15 second to one minute consultations.

Class-size reduction teachers were required to participate in state/district mandated literacy training. All shared through interviews that although the instructional strategies presented were helpful, facilitators never explicitly commented on nor modeled specific techniques designed to capitalize on small-class configurations. Thus, when asked if they were teaching differently, all replied "no." As one teacher stated, "I'm using the same strategies that I would use in any size classroom, it's just that they're working better."

Children were frequently found working independently or in pairs on paper and pencil/crayon tasks. One teacher used various centers where students, grouped in fours, worked independently on the same activity. Drill and practice worksheets were minimally used. Journal writing was extremely common; every child in all classes was observed writing and drawing in personal journals. Teachers were rarely found actually assessing students although preparation for various district language arts assessments was clearly a common practice. There was some evidence of computer use (a potentially powerful tool in smaller classes), where several students on two occasions were seen typing stories for publication. One teacher shared that his first grade students were able to "publish" (input and print) *all* of their stories in one day, a formerly impossible accomplishment with thirty-two students. Nevertheless, most learning activities were teacher directed and controlled—a familiar and traditional instructional model.

In terms of learning environment, discipline problems in most cases were non-existent. Generally, teachers' interventions consisted of reminders to students to pay attention and to focus on the task at hand. Interestingly, it appeared that most classrooms were much quieter and calmer than those with thirty children, however teachers still felt the need to maintain "quiet" classrooms and were frequently found asking students to use "soft" voices.

One sample teacher experienced a unique aspect of the initiative. Due to her

principal's policy implementation choices, this teacher taught only eleven students for three hours every morning; in the afternoon, her class roster rose to twenty four. Although much of her instruction was also focused on the entire group, students were given many opportunities to work independently or in pairs. In discussing her situation with other teachers who taught twenty students all day and in comparing her "morning" situation with the afternoon, she shared that with significantly fewer students, i.e. fifteen or less, she became a true "coach and facilitator." When her class increased beyond fifteen, she assumed a more managerial role and found she was not able to focus on instruction as effectively, thus raising questions as to the degree to which classes must be reduced in order to reasonably implement instructional reform strategies.

Differences Based on Teachers' Experience Levels

As noted above, all sample teachers basically used the same teaching strategies. No matter what their experience levels, whole-group instruction predominated. Nonetheless, the three veterans appeared more comfortable in the classroom, where transitions were smoother and directions given with apparent confidence. Instructional pacing flowed in an uninterrupted fashion. These teachers tended to describe their instructional practices with more authority and with a more informed knowledge base.

In comparison, the beginning and emergency permit teachers projected a more tentative and hesitant tone when interacting with students. Overall pacing seemed slower. On several occasions, several of these teachers halted classroom action as they mentally appeared to formulate their next steps or to make instructional decisions. All were eager to share their observations about students, however, and oftentimes solicited advice and suggestions.

Teachers' and Students' Perceptions of the Policy and Its Effects

In contrast to the observational findings, teachers *perceived* that they used various instructional strategies to teach reading and writing. All stated that they were able to work with students individually more often and that student assessment was less cumbersome. One stated that she was able to track "where the students were at" more easily. One teacher observed, "There is less 'fringe,'" meaning that there are fewer students who manage to hide from the teacher's gaze, to daydream, or to tune out. All said they felt the pressure of the district-wide assessment program and that there were high expectations attached to the state's class-size reduction initiative. Many shared, "These kids better be reading by the end of the year!" Regardless of these pressures, teachers were enthusiastic, stated that morale was up, and continually expressed their "love" for the policy. One stated, "I've definitely died and gone to heaven and there's no way I am ever going back [to 32:1]."

Even the students were enthusiastic, stating (the most common response) that their rooms were quieter and that they could concentrate better. Two remarked that

they liked being "less squished." Others volunteered that it was easier to make friends, that they got their turns more often, that it was easier for the teacher to teach, that their rooms were not as messy (a debatable observation), and that it was easier to think. Not all students supported the policy, however. Responding to how he liked having fewer students in his class, one second grader shared, "I don't like it. During P.E. there aren't enough kids to make a circle." Another second grade girl lamented, "I don't have enough kids to make friends with." And finally, one boy said, "I just like having more people around."

Conclusions/Overall Learnings/Implications

Recognizing that this is only the first implementation year of this policy and that it may be just too soon to expect any substantial instructional changes, the findings from this study, although not distinctively different from past reports, provide some interesting insights. For example, teachers generally still rely on a traditional pedagogical model—whole-class instruction—no matter what their experience levels. Perhaps the initiative is still just too new and, because of the policy's high stakes nature, teachers are not yet ready to abandon their beliefs regarding a tried and true practice. Additionally, teachers' perceptions of their teaching do not necessarily match the instructional realities found in their classrooms. This supports Stan M. Shapson's (1980) assertion that there is often a mismatch between what teachers say and do in their classrooms. Knowing what their classroom "should" look like and being influenced by state expectations and district assessment pressures, teachers may be experiencing a certain degree of stress which may inhibit the way they pedagogically approach these smaller classes.

Arguably, teachers need to take risks, and explore the possibilities that smaller classrooms afford (i.e. increased hands-on activities, more individualized attention and instruction, flexible grouping practices, the creation of more meaningful and in-depth lessons that require critical thinking as opposed to simple worksheet production, increased parent involvement and communication, an infusion of the arts to teach concepts). Until teachers understand that they have the freedom to investigate and to try creative instructional strategies and approaches, the chances for this policy's success will diminish.

Nonetheless, the immediate benefits surrounding the initiative appear to be the "intangibles," with effects that may be hard to measure. Discipline problems have been mitigated by the reduced numbers. Teachers have increased opportunities to monitor their students more closely, allowing them to maintain classroom control more easily—clearly an important teacher issue. Students notice the differences as well, citing their abilities to concentrate and focus in a quiet atmosphere as a major positive aspect of the policy. Additionally, the as yet unrealized, potential for more concentrated and sustained individual student/teacher interactions certainly exists. Furthermore, teachers feel positive about their experiences teaching in 20:1

classrooms. Morale has improved and there appear to be less student-generated distractions.

If students are truly to benefit from this policy, school districts need to find some sort of middle ground where teachers can concentrate not only on teaching but also on defining and experimenting with practices that offer the greatest benefits to students. Since perceptions oftentimes differ from reality, training (by districts, teacher education institutions, and other various support mechanisms) needs to target the critical question: "How does one make the most of teaching and learning in smaller classes and can these strategies translate quickly and effectively into 20:1 classrooms?" And this information needs to be co-constructed with those actually implementing the policy through a concentration on implementing promising new pedagogies that focus on getting results. In this way, the gap between perceptions and reality may begin to close.

At the same time, districts will need to deal with the politics of actually producing results. Unfortunately, policy implementation is messy, difficult, unpredictable, and time-consuming (Fullan, 1993). Allowing time for teachers, who are often brand new and "green," may be a luxury districts can't afford. Political realities dictate that there needs to be a few more tangible benefits related to student achievement or the expense of the program may prove too much for California to shoulder. This also leads to a further question: have class sizes been reduced enough to even begin to make a substantial difference?

Regardless of the political, economic, and practical issues associated with SB1771, perhaps a greater emphasis should be placed on the intangible effects of this program with the understanding that these may truly be the necessary precursors to lasting results. After all, it's been a long time since students *and* teachers have felt good about school.

References

Achilles, C. (1996). Students achieve more in smaller classes. *Educational Leadership, 53* (5), 76-78.

Clinchy, E. (1996). Reforming american education from the bottom to the top. *Phi Delta Kappan, 78* (4), 269-270.

Evertson, C., & Randolph, C. (1989). Teaching practices and class size: A new look at an old issue. *Peabody Journal of Education, 67* (1), 85-129.

Finn, J.D., & Achilles, C.M. (1990). Answers and questions about class size: A statewide experiment. *American Educational Research Journal, 27* (3), 557-577.

Fullan, M. (1993). *Change forces: Probing the depths of educational reform.* Bristol, PA: Falmer Press.

Johnston, J. (1989). Teacher perceptions of changes in teaching when they have a small class or an aide. *Peabody Journal of Education, 67* (1), 106-122.

McLaughlin, M.W., & Talbert, J.E. (1993). New Visions of teaching. In D. Cohen, M. McLaughlin, & J. Talbert. (Eds.), *Teaching for understanding: Challenges for policy and practice* (pp. 1-10). San Francisco, CA: Jossey-Bass.

Miles, M.B., & Huberman, A.M. (1984). *Qualitative data analysis: A sourcebook of new methods*. Beverly Hills, CA: Sage.

Miles, M.B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook. 2nd ed.* Thousand Oaks, CA: Sage.

Mitchell, D., Beach, S.A., & Badarak, G. (1989). Modeling the relationship between achievement and class size: A re-analysis of the tennessee project STAR data. *Peabody Journal of Education, 67* (1), 34-73.

Robinson, G., & Wittebols, J.H. (1986). Class size research: A related cluster analysis for decision making. *Educational Research Service*, Arlington, VA.

Schlecty, P. (1990). *Schools for the 21st century: Leadership Imperatives for educational reform*. San Francisco, CA: Jossey-Bass.

Shapson, S., Wright, E., Eason, G., & Fitzgerald, J. (1980). An experimental study of the effects of class size. *American Educational Research Journal, 17* (2), 141-152.

Smith, M., & Glass, G. (1980). Meta-analysis of research on class size and its relationship to attitudes and instruction. *American Educational Research Journal, 17* (4), 419-433.

Wilson, S., Miller, C., & Yerkes, C. (1993). Deeply rooted change: A tale of learning to teach adventurously. In D. Cohen, M. McLaughlin, & J. Talbert. (Eds.), *Teaching for understanding: Challenges for policy and practice* (pp. 84-129). San Francisco, CA: Jossey-Bass.