

**Twenty IFs - The Yearly History of a Change in Plans  
1971-1972 - The Ten No's - Acceptance - The Fire - and Two IFs**

**A Control Group - The Accidental Testing of the Ten No's**

As Mary's and my first year at Mayfair school was ending, Jerry obtained a grant of several thousand dollars to fund the purchase of an experimental math textbook series for use at the fifth grade level.

Because the school wanted to assess the effectiveness of the new series, the three teachers using it were to do pre and post-tests of their fifth grade students in the first year of its implementation. Jerry already knew that I would not be using the textbook-workbook series he had purchased, so he included my class in the pre and post-testing as the control group, to further measure the series' effectiveness.

Since my class was to be included in the pre and post-testing, I had Jerry agree to distribute students by ability and behavior equally among all four classrooms. I did not want to receive another loaded classroom if the efforts of all our classes were to be measured against one another.

The three teachers and I, along with Jerry, reviewed written summaries prepared for the students for all four fourth-grade classrooms and divided the students into what we all agreed were four equal classrooms. I then took my student-summary pages home with me over the Summer, so no one could make any changes in the students I had been assigned.

At the beginning and again near the end of the 1971-1972 school year all four classes were tested. The results of the testing were posted in [Introduction - Credibility](#). I will post them again here.

	Number of Students			Bob's Top 7 on Pre-Test	
	Pre-Test	Post-Test	Missing	Pre-Test	Post-Test
T***	27	17	10	4.0	6.1
Bob	29	27	2	4.0	6.3
K*****	31	19	12	4.0	5.7
B***	30	14	16	4.3	7.2
	117	77	40	4.4	6.0
Bob %	25%	35%		5.0	6.2
				5.1	6.5
	October	April	7 Months	Bob's 27 all gained a year or better	
	Pre-Test	Post-Test	Gain	Greatest gains by bottom students	
T***	3.6	4.9	1.3	Pre-Test	Post-Test
Bob	3.5	5.7	2.2	2.9	4.5
K*****	3.6	4.7	1.1	3.2	5.2
B***	3.4	4.5	1.1		

My class, using no textbooks or workbooks at all, had averaged two years and two months growth in their math scores. While the other three classes had averaged a year's growth, a year's average for the class

meant that roughly half of the students in each class had not experienced a year's growth. In my class, every single student had experienced a year or more in growth.

I was not surprised that my class did so well. I was always confident in my students' level of achievement. What did surprise me, though, was the number of students the other fifth grade classes has lost during the year, 10, 12 and 16 respectively. I was unaware that Mayfair School experienced a high turnover rate for students. In both Cortez and Mayfair my rate had always been only one or two students a year. At Kavanaugh in East Palo Alto the rate had been zero. When I asked Jerry about this, he informed me that just as many of my students had moved away from the school, but in my case the parents were bringing their children back to the school each day to keep them in my class.

### **A Growing Acceptance of the Two Teachers of Teachers**

While end-of-year testing was common at Mayfair, pre-testing was not. No one on the staff could ever remember having pre and post-test results for any classes before this experiment. Jerry disseminated our fifth grade pre and post-test results school-wide. The experimental math series had not failed. An average of a year's growth for a class was not easily achieved at Mayfair School. What was even more obvious, though, was that whatever I was teaching, and by logical implication, whatever Mary was teaching, was actually working.

The teachers on the Mayfair staff knew that Mary and I were Millar Math instructors. However, before the test results were disseminated, only two or three teachers had even asked us what Miller Math might involve. The test results showed that my fifth graders were now actually functioning at a fifth grade level, when no other Mayfair class at any grade was functioning at or even near grade level. The seeds of curiosity about what Mary and I were doing had been sewn. What would cause these seeds to grow and then blossom was the fire.

### **The Fire**

The year of the test was also the year of the fire. Mary, being a morning person, went to school early each morning to ready her classroom for the day. I, being a night person, readied my classroom at the end of the day and came to school in the morning as late as would be allowed. So, Mary was already either at school or on her way there when I received a call from the school's Vice Principal saying there had been a fire at our school. I said, "You're not calling all the teachers are you?" His answer: "No, just the teachers whose classrooms burned down."

As I was driving to school that morning I already knew what to expect, and was already thinking of ways to teach when all the materials I had

been teaching with were now just piles of ashes. When Mary reached school, she saw fire hoses still on the ground and followed the path the hoses laid out to see burned, roofless-walls where my classroom had been. She was still standing there in tears when I arrived.

The fire that burned my classroom to the ground had been so hot that there were melting streaks on the glass windows in the school wing next to mine. The stiff metal stands of my classroom desks were now melted into u-shaped curves. Nearly everything I taught with was gone (except my mind), including my classroom's 600 book library and thousands of uninsured dollars worth of teaching materials for all subjects. Now, all that was left was heaps of wet ashes.

My mind was not scorched though, so it was now up to me to come up with new ways of teaching that did not use any of the materials that were now piles of ashes in what had been my school home. The arsonist had already been identified. He was not anyone from our school. He was a problem-child living nearby in a foster home who hated schools. Our school just happened to be the closest one to where he was staying that night. Nothing personal involved.

As bad as the fire was, it did two positive things. First, when Mary, standing with me outside the rubble of my classroom, asked me what she could do to help me, I said let's finally do the Reading Program we've been thinking about. Second, it brought the other fifth grade teachers to my side for the first time.

The wing of the school that burned down housed all four of the fifth grade classrooms, so all four of us had lost everything. But the "everything" for the other three teachers consisted nearly exclusively of what the district provided. They had very little of anything personal in their rooms. The school district gave us each \$750.00 to cover all of our losses. The other three teachers got together and gave me all of their money. They knew what I had lost and they wanted to do their part to help me get it back.

### **CIME**

What I did with the money though, was something quite different. The Miller Math funding from the State had run out and the Miller Math program had reconstituted itself as the self-supporting Center for the Improvement of Mathematics Education (CIME). It would be the same Miller Math program, still run by Leonard Warren, but would now be open to any teacher who could afford its enrollment fee.

I thanked my fellow fifth grade teachers for the money and promised to use it to begin my re-equipping process. However, that's not what I

actually did with the money. Instead, I informed the Mayfair teaching staff that I had arranged with CIME for a grant to pay the enrollment fee for any Mayfair teacher who wished to attend a CIME workshop in the coming summer. Those teachers who had grown curious about what Mary and I were doing in our Miller Math workshops would now have their way paid to a CIME workshop.

Once the pre and post-test results were shared with all the Mayfair teachers, teacher-interest in taking advantage of the CIME grant money surged. Of the twenty-two Mayfair teachers not named Mary or Bob, eleven ended up taking advantage of the enrollment fee offer and attended the June 19th through June 30th CIME workshop that was conducted in San Jose. Mary and I would be teaching there. The pre- and post-test results made many of the teachers who had resented the “teachers of teachers” Jerry had hired, now willing to be taught by these same “teachers of teachers”.

### **Two IFs**

IF Jerry had not decided to use my fifth grade class as a control group for assessing the math series he had purchase for use by the other fifth grade teachers,

Then proof of the effectiveness of the Ten No’s would not have existed.

That proof had a very positive effect on Mayfair teachers’ view of us.

IF Miller Math had not become CIME, and now open to all,

Then none of the teachers who responded to my CIME free-tuition offer would have taken the CIME workshop that Summer. The participation of so many Mayfair teachers in the CIME workshop that had both Mary and me on its instructional staff completely erased all the negative feelings about us that many of the staff harbored the previous year. This now positive feeling about Mary and me would prove quite handy as our school prepared to participate in the Federally funded Voucher Experiment that will be discussed in the next section.