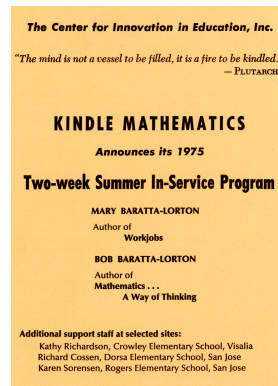


Twenty IFs - The Yearly History of a Change in Plans The New Dream - Beyond the Twenty IFs

The New Dream

The dream of Learning Tree vanished. It was replaced with the Center for Innovation in Education dream, instead. As I said earlier, when I first became a teacher, it was my plan to teach in the same school until the children of the children I taught were students in my class. While I would have been quite content with that outcome, the 20 IFs I have listed in this chapter took both Mary and me on quite a different path.

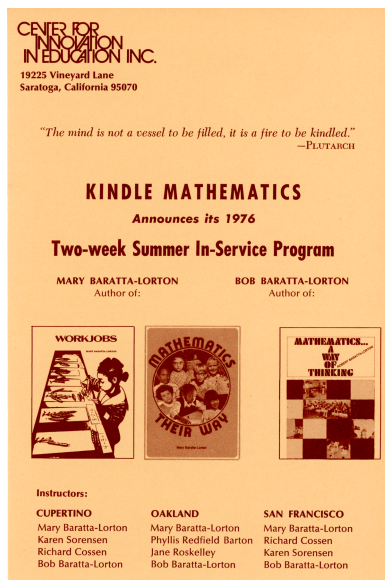
The Center's founding in December of 1974 was followed by the Center's conducting its own workshops in the Summer of 1975.



Addison-Wesley had accepted Mary's and my math books for publication, however, neither book had been published. We would eventually name our primary and intermediate workshops after our books. For the first two summers, though, we used the name Kindle Math from the Plutarch quote "The mind is not a vessel to be filled, it is a fire to be kindled."

Even though the book was not yet available, the 1975 workshop brochure listed me as the author of *Mathematics a Way of Thinking*, just to have something to write after my name. Both Mary and I gave our workshop participants photocopies of our books' manuscripts.

By the Summer of 1976 *Mathematics Their Way* had been published. *Mathematics a Way of Thinking* had been submitted to Addison-Wesley before *Math Their Way*, however it was obviously better to publish Mary's book first. Even though my book had not yet been published, we had Addison-Wesley prepare a mock-up of its cover so we could add it to our workshop brochure. The designer put my name on the cover at a 45 degree angle. I really liked that unusual touch, however when the book was finally published that little feature was gone.



You can see that by our second summer we were already training additional instructors. In this case, all the names listed in addition to Mary’s and mine were trainees not yet ready to go out on their own. From the beginning, we always listed the names of all of our instructors on the cover of every workshop brochure.

Ctaite Mathe Teackst Buk

From the start, the Center’s workshops were meant to give the workshop participants the same kind of learning experiences the children in their own classrooms would be having when our participants were teaching them. Because of this, each workshop was limited to no more than 35 participants. Numbers over 35 were placed on a waiting list and called if there were any openings.

Our workshops were meant to provide teachers with a classroom-like experience, simulating for them the experienced we wanted them to share with their students. At our earliest workshops, and for every workshop thereafter, we began with an experience meant to simulate textbook learning and what we felt was wrong with it. We called this activity “the Ctaite Mathe Teackst Buk”. The creation of this activity was described in the [Mary and Receptiveness](#) section of [Chapter 8](#).

The point of the activity is to demonstrate that numbers are not the concept, they are a record of the concept. This reflects the workshop’s underlying concept-connecting-symbolic philosophy. First, allow children to understand the concept. Only when the concept is understood is it connected to the symbols used to represent it.

This same concept-connecting-symbolic philosophy is present in both the Center's math and reading programs. In math, physical objects or "manipulatives" are used to represent the concepts. Numbers are introduced to record already understood concepts. In reading the sound-pictures are the "manipulatives" that allow the students to understand the concept. Letters are introduced when the concept is understood.

Follow-up Support

All of our first workshops were given locally because Mary and I were the only instructors and each workshop also included follow-up sessions throughout the Fall. We were now doing what we had wanted both Miller Math and CIME to do, providing follow-up support for teachers.

I mentioned earlier that *Workjobs* had sold 100,000 copies before Addison-Wesley even began advertising it, thanks in large part to the *Learning Magazine* article. However, Addison-Wesley did not know the name of a single *Workjobs* purchaser. This was before there was an internet or emails or websites. How could we provide support to teachers if we didn't even know who they were? We did not repeat that mistake with our math books.

For Mary's and my math books, I had Addison-Wesley add a page that included a tear-out postage-paid postcard addressed to the Center. Now, teachers who bought the books could send us a postcard telling us who they were. Addison-Wesley agreed to add the page because they included a postage-paid postcard addressed to themselves, as well.

Since our purpose was to provide support to teachers who were using our books, the enticement to get teachers to send us their names and addresses was a free subscription to newsletters that we sent out four times a year that answered teachers questions and offered additional teaching ideas. Even though all of our workshops were still local, our newsletters could provide support to teachers all across the country.

The Center's website has a link on its Home page to a book entitled *Mathematics Their Way Summary Newsletter*. This book is a compilation of all of *Mathematics Their Way's* newsletters. The Tribute to Mary that is the first chapter of the book is the first newsletter I wrote for Mary's *Mathematics Their Way* followers after Mary's death.

A Teacher in Oregon

A teacher in Oregon who was using Mary's book asked us to come to her city to give a workshop. We said that for us to go to Oregon, she would first have to come to California, take the workshop, go back and use the ideas in her classroom for a year (with our support) and then invite us. She would then be responsible for conducting the follow-up workshop for

participants in her area and could also give future Math Their Way workshops in her area.

This became the model for how the Center spread itself across the country. We would only go where we were invited. If we were invited, and there was not already an instructor nearby that we had trained, a teacher from the site inviting us would have to take a workshop and then use the ideas in his or her classroom for a year - with support from the Center. Only then would we give a workshop at that location and the person inviting us would lead the follow-up class and have the option to learn to become a Center instructor, as well. In 1978, we gave our first out-of state workshop in Portland, Oregon, because that teacher in Oregon did what we said she should do.

Just For The Fun of It

In the same summer we gave our first out-of-state workshop, we gave a workshop in San Francisco. Just for the fun of it, Mary decided to rent a house for her to live in for the two weeks of the workshop. Mary loved the City and she wanted to use our workshop there to enjoy life in the City for a couple of weeks. Mary also took that opportunity to extend invitations to several people who had contacted her about having her come to their States to conduct workshops.

Mary invited these people to come to San Francisco and live with her rent-free in that home, while taking her workshop. Rent-free, but everybody chips in for food, of course. They could both meet the Center's requirement of taking a workshop first before inviting the Center to their State and keep Mary company in her San Francisco adventures.

San Francisco was less than an hour's commute from the Center, so for those two weeks, I would commute and Mary would be a City dweller. Vivian and Robin, the two main people running the Center in Mary's and my absence would both be on vacation at the time of the San Francisco workshop, so I could not join Mary in the City. Having out-of-town visitors to keep her company there was the perfect plan.

1978 - 1979

As I said, 1978 was the Summer of our first out-of-state workshop. The people who attended that Portland, Oregon workshop were not just from Oregon. And, the people who lived with Mary for that two weeks in San Francisco were from all over California and the rest of country. Many of the people from the Summer of 1978 workshops returned to their schools, taught Math Their Way for a year and then invited the Center to conduct workshops in their cities.

The Summer of 1979 had workshops in the following places that were not within commuting distance from the Center, listed in order of their workshop dates: Portland, Oregon, Fresno, California, Boston, Massachusetts, San Diego, California, Rockford, Illinois, Spokane, Washington, Lansing, Michigan, Stockton, California, Kent, Washington, Surry, British Columbia.

The Miller Math workshops had been two-weeks long because expenses were not an issue. Both instructors and participants who lived too far away to commute lived in a dorm and shared cafeteria food. Hardly any out-of-pocket expenses at all. The CIME workshops were all conducted in California and the fifty-five instructors from Miller Math, many of whom were now CIME instructors, were from all over California, so there were almost always instructors living nearby any workshop site.

We made the decision to switch our workshop length from two-weeks to one-week to cut in half the expenses for workshop participants traveling long distances to attend. Since our requirement for conducting a workshop in a new area was that someone from that area had to travel to some other area to take the workshop first, it was only fair that we make that trip more affordable.

From One State to Fifty

The more workshops there were, the more locations that were available for people who wanted us to come where they were, to meet our first requirement. We gave a workshop in Washington D.C. that had people in attendance from seven different states in the North-East and South. That one workshop was responsible for the spread of Center workshops up and down the East Coast.

Even though we only went where we were invited, we were invited everywhere. In 1992, Mississippi became the 50th state to host a Center workshop. In the Summer of 1993, 261 of the Center's more than 300 instructors conducted 702 workshops in all 50 states for a total of 21,629 teachers. Every instructor's name is on the flier, of course.



The Summer of 1993 was the peak year for Center workshops. What happened in 1994 and beyond? That is a story told in [Curriculum Chapter 14 – Ending Illiteracy in America](#).

Instructor Gatherings

When the Center's instructors were no longer just local and now residing in all parts of the country, the Center began having them all come together at the beginning of each summer for an Instructor Gathering at which the Center would give them their own workshop.

For the Instructor Gatherings, the Center invited guest speakers from all over the country and the world to share their diverse knowledge with its instructors. Speakers ranged from R. Buckminster Fuller, developer of the geodesic dome, to Raffi (Cavoukian) a Canadian singer-lyricist and author, best known for his children's music, to a guest speaker flown over from the Jean Piaget Foundation in Geneva. Every summer was a new experience.

The purpose of the gathering was two-fold. First, to let instructors from all over the country get to know their fellow instructors and the Center's staff. Second, to let each instructor know that he or she was part of something much bigger than his or her individual 35 person workshop might seem.

Each year, the gatherings were held at different sites across the country. They began when the Center had only a hand-full of instructors and continued even as the number of instructors passed three-hundred. It should be added, of course, that the Center paid all the expenses for every instructor every year, including transportation to and from the site.

Spread Across the World

The Center's spread across the country was mirrored by its spread across the world.

Australia

A woman wrote an article for a magazine published by the National Council of Teachers of Mathematics (N.C.T.M.) in which she reported the results of her world-wide search for the best elementary mathematics program in the world. She wrote that she finally found what she regarded to be the best program in her visit to Australia. She found the program in Australia, but she was surprised to learn it was from California. It was called "Mathematics Their Way".

India

At one point I was invited to speak to teachers in Iceland on a specific date. I said I was not free at that particular time. The person then asked

me if I could come to India instead and named a different set of dates. Iceland? India? I didn't know they were interchangeable.

Coincidentally, and this does not count as another If, I had become a big fan of Bollywood movies and had begun teaching myself Hindi, so I could understand more of what was going on in the films than the English subtitles revealed.

The inviter and I planned a time for me to give a multi-day math workshop in Lucknow, India at the City Montessori School there. Google that school name. It happens to be largest school in the world. Here is a picture taken of my first workshop in India.



I am the person sitting at the front of the room, in front of the screen by the overhead projector. There are four-hundred teachers in the room, Twenty teachers each at twenty different tables. The picture was taken from the balcony. Four of the tables of twenty cannot be seen because they are beneath the balcony.

In [The Birmingham Conference](#) section of [Chapter 8 – The Arithmetic Mistake and a Year Off From Teaching](#), I describe the 300 teacher workshop conducted by Edith Biggs that Mary and I had attended. I used Edith's Birmingham workshop model for my 400 teacher workshop in Lucknow. In advance of my giving a workshop for the four-hundred, I

gave the same workshop to a group of twenty teachers, each one of whom would then serve as a teacher's assistant at each of the twenty tables. The workshop was conducted in English, of course, but my many trips to India have made great use of my ever increasing Hindi vocabulary.

PDF Copies of Every Center Book

As I was giving my workshop to those four-hundred teachers, I was bothered by the fact that the book those teachers would need to guide them through implementing the ideas from my workshop in their classrooms would cost them at least a month's salary. When I returned to America, I began the process of scanning every Center book and creating downloadable PDF copies for each one. From that point forward, clicking on any of the nine book covers that form the arch on the Center's Home page leads to that book's downloadable free pdf copy. Having an actual copy of any of the books is much more convenient, but not if buying it does costs at least a month's salary.

International Invitations

The Center has been and is still being invited to give workshops all over the world. For the most part, I do not assign myself to workshops in foreign countries, unless my presence is specifically requested. I prefer allowing the foreign adventures to be spread among the Center's many instructors.

The requirement of having a person take a Center workshop before inviting the Center to conduct a workshop in that person's area is not applied to invitations to give workshops internationally. To whichever country the Center is invited, an instructor is sent.

The foreign countries where I personally have given workshops because it was specifically requested of me are Canada, England, Iceland, India (eleven different cities) Saudi Arabia, United Arab Emirates, Turkey, Latvia, and Chile.

Chile

In Chile, I met with the teachers who had translated *Mathematics Their Way* into Spanish (with my permission). While there, I gave my first U.N. style lecture. By "U.N. style" I mean, the audience was wearing ear pieces that allowed them to hear in Spanish a running translation of the talk I gave in English. I met with the interpreter in advance to explain words like "Workjobs" and "Pi". The Pi to which I would be referring to was not the edible kind.

The Spanish edition of *Mathematics Their Way* is, as are all other Center books, available as a free pdf download from the Center's website.

Russia

Although I have visited Russia to meet with teachers, I did not give a workshop there. Instead, I invited two teachers from Russia and an interpreter (who was also a teacher) to come to California for their workshop training.

The three of them lived with me for the month they were in California. One of the teachers took a 8 ½ by 11 pad of graph paper and folded all its pages into a many pointed star, which she then gave me as a present at the end of their visit. That star still hangs in my living room.



Qatar

The country of Qatar invited me to come there for a year to train their teachers. I could not run the Center from Qatar, so I send my friend Richard instead. Richard ended up staying in Qatar for two years.

The Instructors Richard trained in Qatar to continue his work sent me a picture of themselves. I am sharing an edited version here, since the original was only meant for my eyes.



D-Talks

As further example of the Center's spread across the world, I was invited to give a D-Talk to teachers in India on September 8, 2021. The D in D-Talks stands for Disruptive.

The D-Talks for the year 2021 featured video presentations by 174 different guest speakers representing more than twenty different

countries. My live presentation on that Wednesday morning had an audience of nine viewers. A later D-Talk that same month had nearly six-hundred viewers for its live presentation.

With no promotion of the D-Talk videos other than word of mouth, the video of my talk now has more than three times as many views of the 174 presentations as the second most watched video, and at least a hundred times more views than the least watched presentations. Because of the success of my first presentation, I was invited to give a second D-Talk, making me the only presenter asked to speak twice. My November 30, 2021 D-Talk has now become the second most watched video.

The Center's Home page has links to both of my D-Talks. First talk: Teaching Every Child With NO Child Left Behind (Mathematics). Second talk: Teaching Every Child With NO Child Left Behind (Reading and Writing). Each talk-video includes a live table of contents. "Live" means, click on any topic listed in the table of contents and you will be taken directly to that point in the video.

Summary

I lost the opportunity to teach at the same school until the children of the children I had taught were students in my class, I was given another opportunity instead – the chance to help children throughout the country and around the world to feel better about themselves.

This chapter's twenty new IFs are the IFs that were the reasons why Mary and I wrote our two math books, created the Dekodiphukan Reading Program and founded the Center for Innovation in Education. However, none of these IFs would have been possible if it were not for the many IFs that preceded them. And, if it were not for that very first IF of [Chapter 2's Twenty-Seven IFs](#), that occurred when I was a Junior in high school, I never would have been a teacher at all.

The simple act of my being kneed in the ribs set in motion the many future IFs that would determine Mary's and my paths in life. Just as the IFs in all our lives set the paths for the lives we end up living.