

## Marilyn's Mathematical Life

Year	People & Events These influenced my mathematics-teaching career.	Narrative
1944	Born	There were no math expectations out of me one way or the other. My father was a firefighter, my mother a housewife. My older sister got pregnant at 15; my older brother joined the Air force at 17. Neither completed high school. I was the first. Nobody could figure out where my math ability came from.
1945		
1946		
1947		
1948		
1949		
1950		I used to force my younger brother to sit down and play "school" with me. I was always the teacher.
1951 – 1 <sup>st</sup> grade	Mrs. Koplan	I was a good student, teacher's pet.
1952		The class was called arithmetic, not math in my grade school years.
1953-3 <sup>rd</sup> grade		I still remember seeing a subtraction problem with 2 zeros like $2900 - 2348$ . I did not know how to borrow from two places away.
1954-4 <sup>th</sup> grade	Mrs. Bone	This is when I first discovered that I was good at math. I loved timed math tests. I got outstanding progress checked in arithmetic, reading and spelling.
1955		
1956		
1957-7 <sup>th</sup> grade	Mr. Stensrud	Polly & I were called in front of the class because we were taking. He gave us a big long math problem and I answered it correctly practically before he had it out. He seated us by math ability (Polly and I were at opposite sides of the room.) and the first two rows were told we would get an A no matter what. We were to work to learn not for the grade.

1958-8 <sup>th</sup> grade	Mr.Sbarbora	He was pretty gross and improper, but I was his favorite student.
1959-9 <sup>th</sup> grade	Mr. Brown Algebra	Special class. We were told we would get an A and were to work to learn not for a grade. Charlie Hall sat in my double seat with me for help with his math. I thought he was icky... Two years later, not so much...
1960-10 <sup>th</sup> grade	Mr. Catmull Geometry	I graded all the papers for him. He didn't even give me a key. I had to determine what was right. I was teacher's pet again.
1961-11 <sup>th</sup> grade	Miss Bell Algebra 2 Trigonometry	I always got an A. I talked a lot. I can still remember being confused about the definition of absolute value. How could it be $-x$ if $x$ was negative???
1962-12 <sup>th</sup> grade	Miss Bell College Algebra Analytic Geometry	Only 2 girls in my math class. Guys thought I was smart. Took Physics too. 2 girls in that class. One day Ms. Bell asked me what I wanted to do. I told her I wanted to be an elementary teacher. She said: Why would you want to put on kids' boots, clean up vomit and wipe noses. You should teach math.
1963- Freshman at U of U	College algebra, calculus	Declared myself a math teaching major.
1964-Sophomore	Dr. Burgess Advanced calculus Keith Reid – Topology Don Tucker-honors advisor	Graded papers for calc teachers. At most 2 girls in classes.
1965- Junior	Dr. Biesle Foundations of Geometry and Algebra. Dr. Wolf Math methods (yuck)	Graded papers. Proved the angles of triangle $180^\circ$ theorem.  Decided to get major in mathematics not mathematics education.
1966-Senior	Differential Equations-	My first C in a math class made me decide not to do my honors thesis.  Worked with Stan Jenks in math ed on NEW MATH for elementary teachers. Applied for grad programs at Stanford and U of Illinois to get certification.

1967 STEP Stanford Teacher Education Program	Projective Geometry Dr Bacon Logic	I was an intern teacher teaching geometry and algebra at Jefferson Union High in Daly City. Mid year, the calculus teacher needed to take on more responsibility and asked me to teach his calc class. What an opportunity!
1968 Skyline High Math department	Dave Pehrson Bill Earl	Taught geometry and algebra. Loved the kids they loved me. They formed a club "FSOML", former students of Miss Latham. I gave a math club talk titled "Come watch Mobius Strip!"
1969 Skyline High year 2		Loved teaching Loved math Loved my school And my colleagues
1970 Got married		Was teaching a summer trig class when my first wave of morning sickness hit me. I told the principal, who said, "I told you to practice birth control." I decided to be a stay at home mom.
1971		I learned $1+1 = 3$ .
1972	Roy Keir	My husband who had a "math" major from Caltech always had a deep sense of mathematics and when I could not remember or recreate some idea he always could.
1973 Central Jr. High	.	Completed ½ year for a beloved teacher who was promoted. Kids were not that happy with me. Hard to step into shoes of well-loved teacher.
1974 UU CS dept		Taught COBOL programming language Punch card machines
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1976	FORTRAN	Misc programming jobs for chem. Engineering, psychology and medical groups. SPSS, SAS
1976	Volunteered at kids' schools.	Taught logic to 6 <sup>th</sup> graders. Always looking for better education solution for older son.
1977		More programming
1978 HR Block		Tax prep
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1981 Central City Community Center	Betty Jameson, founder of EQUIP (later to be called ELP) program for gifted children.	Was visiting with a woman starting a gifted program EQUIP in Salt Lake district. She talked me into coming in 4 days a week to teach math.
1982 South High		EQUIP moved to South. I taught algebra and pre algebra at the same time. These “gifted” kids were not necessarily gifted at math.
1983 South High	Kathryn Romney, English teacher was a great colleague who influenced my math teaching	
1984 South High		Went full time at South, teaching intermediate algebra. Was made department chair of a very laid back department.
1985 South High		
1986 South High	David Keir (aka wurzel)	My son had a very good math sense and very good math teachers at East High. He passed to me some of his ideas for helping students understand.
1987 Skyline High	Jacque Stonebraker Dave Pehrson Adella Croft Colleagues at Skyline	EQUIP had moved to West High with the closing of South. I was to be dept chair. I had moved into my room. Hardly room for the chairs and me to move around. Very depressing. 3 days before school started, my friend from Skyline called and said we have an opening. I said let me think about it... ok.
1988 Skyline	Skyline High	Started teaching Jr. Honors. Designed and taught a math class for seniors who wanted more math, but did not want to take calculus. We called it math analysis.
1989 Skyline	Charley Miller Larry Lewis BTG instructors.	Took BTG classes at the U. Got some money stipend and Jacque Stonebraker and I bought some software for the old Apple computers. We set up the computer lab and started taking our math classes to the lab. We designed weekly labs for the geometry classes. It caught on BIG. All the teachers started taking their kids to the lab.

1990 Skyline	The Ohio State U Demana & Waites Ray Barton Diana Taggart	I was among the first 4 teachers in the state to start teaching using the graphing calculators. Started off with a CASIO. Used it in the Math Analysis class. Moved up to Texas Instruments in future years.
1991 Skyline	Presidential Award for Excellence in Mathematics and Science Teaching	\$7000 for the school, a new pc for me at home and a trip to DC for my husband and me. Shook hands with Pres. Bush I and had dinner at the State House. Very fancy  Started teaching summer workshops for teachers. Geometry and Algebra. Math camp.
1992 Skyline	Tandy Technology Scholar Award.  Princeton ~ Woodrow Wilson National Fellowship Foundation	\$1000 and my picture in Time Magazine.  1 month at Princeton right about the time of the proof of Fermat's Last Theorem by a Princeton professor, Andrew Wiles. Studied Chaos, Fractals and Change.  Taught AB Calculus
1993 Skyline	District Technology Teacher	Got a new computer for my room. (Apple)
1994 Skyline	Don Clark – State specialist Joleigh Honey hired at Skyline	Started teaching BTG classes for the U in methods and cozy calculus.
1995 Skyline	Berkeley Michael Serra text author.  UofU college of Engineering Award for Outstanding High School Math Teacher.	Sketchpad geometry workshop.
1996 Skyline	Exeter, New Hampshire  Granite Education Foundation Award for Excellence	2 weeks at Exeter- teaching with technology workshop  Nominated by a student, received \$1500,a lovely dinner and conference at Snowbird every summer.

1997 Skyline	Berkeley Paul Forester, author	Calculus technology workshop Taught BC Calculus
1998 Skyline	College of Southern Utah, Cedar City NCTM conference	Technology in "REFORMED" calculus workshop. Spoke on "Cozy Calculus."
1999 Skyline		A series of unfortunate and unhappy events lead me to see I could not stay in the high school teaching business. A miracle of timing occurred and the University of Utah Math Department hired me.
2000 U of U	U of U math department Anne Roberts, Mentor Kelly MacArthur, Colleague	Started teaching Math for Elementary Teachers. Learned so much! Mostly how differently secondary and elementary teachers think about concepts... and that is not a good thing.
2001	UCTM board	
2001	Math Dept. Undergraduate Teaching Award	\$1000 raise in pay
2002	CMEE Math Board	
2003	UCTM Teacher of Teachers award. Dennis Allison hired	
2004	UCTM board MSRI conference PMET workshop Arcata	
2005	MSRI Berkeley PMET workshop San Diego	
2006	MSRI conference PMET workshop SLC Chair of math ed group Emina Alibegovic is hired	With wonderful mentoring from Anne Roberts I was able to do something I did not think I could.
2007	Mary Burbank	Taught an inter-disciplinary class, Intro to Education for math and science teachers.
2008	Hugo Rossi	Center for Excellence in Science and Mathematics
2009	Emina takes over math ed group.	Asked to co-write 1050 and 1060 as online courses.  Master's program in Math Teaching
2010		I am exhausted after recounting all of this. Perhaps it is time to <b>RETIRE?</b>

2010 - 2012	Kelly MacArthur	We developed and published videos to be used in online classes, Math 1010, 1050, 1060. I designed the online courses.
2012		RETIRE? NEVER!

BTG Bridging-The-Gap A federally funded program at the U to encourage teachers to increase their math knowledge. Tuition and a stipend were paid.

PAESMT Presidential Award for Excellence in Science and Math Teaching

WWNFF Woodrow Wilson National Fellowship Foundation, Princeton

CMEE Consortium For Mathematics Education Excellence – Wasatch Front

UCTM Utah Council for Teachers of Mathematics

NCTM National Council of Teachers of Mathematics

MSRI Math Science Research Institute, Berkeley, CA

PMET Preparing Mathematicians to Educate Teachers

CSME Center for Science and Mathematic Education