

Dorothy (Dottie) Jane Edwards Dale Hughes

Her Careers

When I was a little girl, my favorite game to play was “school.” I would line up my little sister's friends on the steps, either in my house or in front of the house, and I would stand up in front of them and play school. I guess I always wanted to be a teacher. It would be thirty years before I got a job teaching real school.

While I was in High School, my favorite teacher was my math teacher. I loved math and managed to take every level of math my school offered. He advised me to take chemistry and physics for my electives, and I did. I fell in love with science courses, so I naturally wanted to major in those classes when I enrolled in the University of Tennessee. I graduated in 1947 with a B.S. in Science, a major in chemistry and a minor in physics. By attending college an extra quarter, I was able to take enough courses in Education to earn a Teacher's Certificate to teach both of those subjects.

There was more than studying going on throughout those years. I joined a hiking club while I was a sophomore, and we took a group of hikers into the Great Smoky Mountain Park several times a year. On one of those hikes, I met Bill Dale, who enjoyed hiking even more than I did. We had several conversations along the trail that I enjoyed, but nothing that set my heart fluttering.

Later I enrolled in an advanced electricity class. When I walked into the lab on the first day, I stood in the doorway and looked around and saw only men, not a single woman in the room--and I knew none of the men. I did not know what to do. They were all around their chosen lab tables, and I was shy to select a seat. Then Bill Dale stood up and yelled, “Hi, Dottie, come sit at our table.” What a relief! I walked over to his table and we became partners for that class. We fell in love and later became romantic partners. We remained together for the rest of his life.

In 1946, I managed to get a job with the Manhattan Project where the Atomic Bomb that helped us win World War II was developed. The facility was only thirty-two miles north of Knoxville. My job was to run tests to determine the amount of radiation in the water that cooled the material in the rods.

Bill finished his Masters degree in Physics and found a job with Thiokol at Redstone Arsenal in Huntsville, Alabama. He worked as an engineering project director on such projects as the retro-rocket that slowed down the module that insured man's first landing on the moon was safe. When we moved in October of 1951 we had a two-year-old son, so we decided I would stay home with him as long as we could live off his salary alone.

By 1970, we realized we had children who would soon be going to college, and we didn't have the money we needed to help them get the education they wanted.

I decided I would try to get a job teaching. I discovered my teaching credentials from Tennessee were lacking six classes to earn an Alabama Certificate, so I decided I would add just a few more and get a Master's degree. That way, I would be paid more each year. In 1972 I got a job teaching ninth and tenth grades science at Huntsville High School where my children were going to school. The next year I was asked to teach chemistry and physics classes. Within three years of teaching physics, I was teaching six classes; since I could only teach five classes, we had to bring in one of the math teachers to teach one of the physics classes. I loved teaching, and I especially loved teaching physics.

During the fifteen years I taught high school science, chemistry and physics, I received several awards of which I am very proud. In 1983 I received the Alabama American Association of Physics Teachers Award which is awarded by the science teachers in our state. In 1984 I received the E. Scott Bar Award for Excellence in Teaching Physics, an award given by the physics teachers of several Alabama Universities. I cherish this award because I was nominated for it when one of my former students, a physics student, gave me the credit when his professor told him he was the best prepared student in all his classes. His professor then nominated me for the award. In 1987, one of my fellow science teachers at Huntsville High School nominated me to be the recipient of The Presidential Award for Excellence from the state of Alabama. This is awarded each year by the President of the United States to a science teacher and a math teacher from each state in an effort to encourage more teachers to be science teachers. The award included an all-expense-paid week-long stay in Washington with my husband at the Mayflower Hotel. We were treated to an elaborate dinner at the White House with President Ronald Reagan. While there, we had a chance to meet our senator (whose brother Bill worked with). We also attended lectures, toured the House Chambers, etc. It was an experience of a lifetime that Bill and I enjoyed very much.

One summer during my years of teaching, the scientists working at Redstone Arsenal invited all of the high school science teachers in our area to apply for a month-long summer job. They thought doing so might encourage teachers to recommend students interested in space travel to enroll in one of the many youth programs there at Redstone Arsenal. I, along with several others, was hired to work along with them. I learned a lot about planning the trajectory of rockets. I later incorporated this experience into a presentation for my physics students.

I have the unique privilege to say that I am one of the few women who worked at both the Manhattan Project and the Space and Rocket Center where the United States of America was preparing the world for space travel. It is my opinion that the two big accomplishments of the United States from the 1940s through the 1960s was making the atomic bomb to end the Second World War and opening up space travel with the work done at Redstone Arsenal.

I loved my teaching career, but I had another career that I loved even more: I am the lucky mother of five children of whom I am very proud. Also, I was wife of two

very **good** and loving men: Bill Dale and I had 48 very happy and interesting years together before he died. Six years after his death, I was fortunate to meet a retired minister whose loving and kind manner brought happiness to me. I married Ken Hughes in 2001, and we had ten loving years together. Bill and I took rearing our children very seriously and were proud that they all chose to get a good education: nine degrees between them! They all chose careers that centered on helping others and all have found happiness in their marriages. They have had fifteen children among them. Now, at my age of ninety-two, they are all giving **me** loving care. I think raising my family with successful results is worthy of considering it a career.

I thought I had completed my comments on my careers until my daughter read my paper and declared "Mom, you didn't write about all the things you and Dad did to make us proud to be in our family! Write about what you did for our neighborhood, our school, church and our city." To make her happy, I am including a few things that we enjoyed doing. We intended these activities to show our children how they could some day become involved and make their community a better place.

We became active in the Parent-Teacher Association, and Bill even served as president one year. We attended sports events, plays, and all other school activities. We introduced our children to activities put on by our city, such as plays, picnics, and celebrations. During our involvement in the Blossomwood Neighborhood Association, we helped build a new swimming pool. All of our children participated in swim teams and had weekly swim meets with other neighborhood swim teams around the Huntsville area. We voted at every opportunity. Getting involved with the efforts to start a Symphony Orchestra in Huntsville was very rewarding. Bill was a member of the Symphony Board on which he later served as President and I helped organize a Women's support group, the Symphony Guild, for which I served in many positions, including President. Although we introduced our children to symphony concerts, we discovered quickly that was not their cup of tea. Bill got involved with the Boy Scouts and I with Girl Scouts when our children were of the right age. We opened our rec room as a meeting place and for three years I had twenty-four junior high school girls come to my house for one afternoon each week for their meetings.

We were very active in our Church, never missing Sunday School or Church (except for sickness or being out of town). Both Bill and I sang in the choir. I started a children's choir, which soon grew to two choirs, that practiced once a week. I continued those until I began teaching school ten years later. Bill and I each served in various capacities, and I give that church an A+ for keeping my children active and involved and **out of trouble** during their difficult teen years.

Then, there were the trips we made with our first four children. For ten years, we had only the four oldest children at home. We made two trips out west and visited most of the National Parks in that area. Our trips were always in our station wagons, always with our luggage riding on top, with only one suitcase per child,

always with paid-in advance reserved rooms in a motel where we expected to arrive. One summer we traveled all around Alabama, stopping at historical and other interesting sites. The children still remember seeing the painting of Sam Dale, whom we have reason to believe is related to us, in the rotunda of the capital building in Montgomery. We spent weeks planning those trips, but oh, how we enjoy remembering them! We also took the children to the New York World's Fair, on a week's visit to Washington D.C., hikes in the Great Smoky Mountains National Park, hikes in the Teton Mountains, and on a trip to the Gulf Coast to do some deep sea fishing. These trips provided another way to educate our children of the wonderful country we are privileged to call home.

Bradley, who was born much later than our other children, also came on many trips when he was the only child at home. Brad and I took a six-week trip to join Bill when he was heading a team who spent several months examining Missiles that were stored in Germany. While I was working, Brad and I traveled to several countries in Europe. Every year Bill was allowed three full weeks, and later four weeks, for vacations. He never missed a year, taking them all at one time, something no one else he worked with did. As a child, Bill's father never took the family on a vacation, so Bill declared he wasn't going to miss a single one.

I think Deborah was right; I worked diligently enough as a wife and mother to include these remarks as part of my "Family Career."