

*Are You a Quantitative or Qualitative Runner?*  
*5.13 Miles and Rosemary-Lilac Shampoo*

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Don't laugh now, but when I first started running, I measured my runs in mailboxes, the kind on posts at the end of driveways. I laced up my "tennis shoes," huffed and puffed from our mailbox to the tenth mailbox – one, two, three, four ... – and, walked the rest of the two-mile loop in my neighborhood. The next night my goal was the eleventh mailbox. You get the idea. The day I ran to mailbox number twenty-five, about one mile, I felt like an Olympic athlete. Within a few weeks of that milestone, I cruised through three loops without stopping. That's six miles if you are following along mathematically. See, I am a mathematics teacher and a runner.

After fifteen years of running, I am currently a doctoral student in mathematics education. Last semester, I took courses in quantitative and qualitative research traditions concurrently, and I contemplated about which research tradition to use for my dissertation. I compared this question with running and wondered: Am I a quantitative or qualitative runner?

If you know about research traditions, you probably think someone working on a Ph.D. in Mathematics Education would automatically be a quantitative runner. Quantitative researchers think there is one reality and it is the role of research to uncover and describe that reality. Most quantitative research involves a hypothesis and then a test of some kind to either confirm or disconfirm the hypothesis by controlling some variables and measuring others. Findings are reported by means of correlation coefficients, T-scores, means, and standard deviations – to name a few. Quantitative researchers use *numbers* extensively. Numbers represent reality.

I like numbers. Why would I be a mathematics teacher if I didn't like numbers? I like to solve mathematics problems and get exact answers. I also like *exactness* in my runs. I start my run at a certain spot, run *exactly* five miles or run *exactly* 52 minutes, and end at an *exact* spot. I hate it when my routine is upset by something outside of my plan like a sudden tornado at the *exact* time I scheduled to head out the door.

I measure my run in fractions and percents. If I'm running for 52 minutes, I know that at 39 minutes I'm  $\frac{3}{4}$  or 75% of the way finished. I like to run on a track because I know that 14 laps are exactly (well, nearly exactly – I know that there is no such thing as an exact measurement)  $3\frac{1}{2}$  miles. I like to play number games in my head. If I've run 42 minutes out of my scheduled 52 minutes, have I gone more or less than 80% of the way?

I once tried to solve this last question while running. Can you believe I started the long division algorithm (that's the technical word for procedure) in my head? 42.0 divided by 52. Move the decimal to the right one position. 52 goes into 420 eight times. Wait a minute! I'm always telling students to forget the procedure and think. How can I do this

logically? Is one out of 52 more or less than one out of 50? I tried to form a mental picture in my head. Pizza. If two pizzas were the same size (the same-sized whole as I would tell my students) would I rather have  $1/50^{\text{th}}$  of a pizza or  $1/52^{\text{nd}}$  of a pizza? My legs moved and my brain functioned at the same time.

I love to write how many miles I run in my log and calculate totals for the week, the month, even the year. I like to brag about running  $x$  number of miles. This is my data and my log is my record of the data collection. My log is a beautiful sight to see.

However, and this is the big however, as I run I also enjoy inner peace. I think about my day and reflect not just on the events but the meanings behind what happened, interpreting my day in my mind. Sometimes I enjoy just being outside and communing with nature. That's the part of me that's qualitative.

Qualitative researchers want to understand and interpret a phenomenon, case, or event in more detail. They sometimes take the "insider" role versus the detached objective view that the quantitative researcher tries to maintain. Data from qualitative studies takes the form of field notes, documents, and interview or videotape transcripts. Through analysis of the data, researchers identify patterns, generate themes, and provide possible explanations or conclusions with thick, rich description. They also realize that other explanations or conclusions exist. There is not one reality. The data analysis is generally not linear but messy, challenging, and rife with ambiguity.

"We saw you running this morning. So why did you run to school today, Mrs. Harkness?" my middle schools students asked. "The colors in the sky changed as the sun rose through the clouds. The water splashed on the rocks when I crossed the bridge across White River. The fragrance of the evergreen trees along the trail reminded me of Christmas. The breeze tickled my face." "So you can't afford a car?"

I guess that for me, running is a combination of both. I love the statistics, the numbers, but I also love my surroundings. I lose myself in thoughts and try to make sense of my world as I plod along. At 2 minutes I notice the yellow crocuses beside my neighbor's mailbox. Oh, wow, springtime is approaching. At approximately the one mile point the chocolate brown Labrador retriever in the distance reminds me of my own dog, Bailey. I check my watch and realize that for the past 5 minutes I was thinking about the agenda for the professional development workshop next Wednesday. I'm about 50% of the way through my run when I notice a newly painted house along the route. What possessed the owners to use those colors? At 40 minutes I wave to the mail lady in her truck. She's ahead of schedule today. I'm more than 80% of the way done. Okay, I can do this. Wow. Where did the last mile go? I lost track of time and my surroundings. 52 minutes – my mailbox. As I walk to cool down I imagine how wonderful it will feel when I write my mileage – 5.13 miles – in my log and then step into the shower to enjoy the sensation of the water and the smell of the rosemary and lilac shampoo.