

# Logowriter: The Real Story About the Tortoise and the Hare

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I do not like numbers. I have never had an interesting or caring math teacher. In Grade 4, I remember receiving my first inklings that math was not for me. I remember that sinking feeling in my gut, that feeling of failure and hopelessness that would never go away—I was told I was in the lowest percentile in the Iowa “thing.” Later, in Grade 7, Mr. K would get so angry at me for not “understanding something so simple” that spittle would hurtle across space and splatter my cheek. In Math 10 (I have no single recollection of the teacher), I received 35 percent on my final report card after much difficulty with the course. I was counseled to forget about my dream to be an architect or interior designer. In fact, I was told that university was out for me as Math 30 was a prerequisite.

So, at age 16, I quit school. (I still don’t have my high school diploma, and just to show “those guys,” I plan to get it after I finish my B.Ed. degree!)

How does this tie into Logo? Numbers terrify me. They bore me, frustrate me and leave me quite cold inside. The questions that needed to be asked and the problems posed with Logo were largely number oriented. So I froze. How can I even attempt to figure out that commonsense Logo circle when my stomach knots up, when that simple obvious numerical answer eludes me as my thought processes tumble and whirl in memories of horribly embarrassing geometry and algebra classes? How can I confidently approach problem solving when as a child I would gaze at question 3 on page 34 and just get sick because the process, much less the answer, just wasn’t there? So, to me, Logo was a terrifying adventure into the past, an adventure where asking a math question and being exposed to a math problem were met with an irritated and impatient “here-let-me-show-you-quick-so-you-can-get-on-with-it” look.

As a result, I stared at the screen a long time before attempting to do it. I felt blank, empty, weak. I felt frustrated at my first attempts—it was a

juvenile piece of work, quite devoid of any mature question asking and problem posing. I felt like someone was going to roll his or her eyeballs. Time was being wasted, and the turtle was stupid in the light of great essays to be written and little people to be encouraged and set free in the world of learning.

I started two projects before I settled on the final one. The first—after hours of work—had the flipside accidentally erased. Oddly, I was so exhausted with it that it hardly raised the hair on the back of my neck. Fortunately, I’m old enough to know there is a tomorrow, so I started a different one. I then attempted a birthday card complete with cake, burning candles and blinking text. But . . . it was boring. Listen, I may not be a genius at Logo—or even show signs of potential—but I do know dull and I do know that I can do better . . . so I abandoned it.

I now envision these preliminary attempts as two wings enveloping me (sounds corny, eh?). I would lie awake, surrounded by them: 5 FD, RT 90 SETSH 34 STAMP ST HT. Waves filling in. Candles flickering. Turtles flying off the page. A blank page. On and on and on.

And then, in a moment, I saw the turtle chasing the rabbit! What?! Was it that third cup of coffee? Can I do that? And then there was a street, and a steep incline where the rabbit poops out and . . . and . . . a *snotty* turtle. And then there was a twist (every interesting writer throws a twist into the plot). Maybe the turtle didn’t win the race. Or maybe there were consequences to his pride—maybe the race wasn’t an easy “A.” Then again, maybe the rabbit was very undeserving of his seemingly gracious loss. Maybe he had mob connections or a rich dad or an unhealthy attachment to his mother. Maybe . . . Oh! Is this called incubation?!? (Let’s just say I’m too modest to call it inspiration.) I went for it.

Suddenly the math took a back seat to the story. I moved from the uncomfortable world of math to the more comfortable world of language. Even though I

had to use numbers and logic to interpret the language, I felt more at ease. The project moved from a number exercise to a whole composition plan. I had a subject, a purpose, a thesis, preliminary notes (my two previous attempts) and some thoughts as to organization and development. I felt a playfulness emerge, and the tension slowly dissipated.

The command centre was my rough draft. The flipside became the paper whereon I wrote the good copy. The page was the illustration(s).

Sequential flow became effective sentence and paragraph construction; each procedure took on the nature of a sentence and paragraph: topical, ordered, adequately developed and organized. Conditional action—the “if statement”—took on the characteristics of logical writing: IF: ANSWER = [MOM] [PRINT[Right on!]]STOP]. And looping was used for emphasis, variety and movement, while program calling formed the subplots and problems that all culminated in one grand solution.

I skimmed the list of primitives and saw my sentence phrases (PRINT), tense and moods (SHAPES), verbs (STAMP), adjectives (WAIT, FILL, SHADE), chronological orders (SETPOS) and characters (TELL [0 1 2 3 ])! This language I could understand!

So, I began to remind myself that just as a decent piece of writing doesn't just happen but takes mucking about, so docs math. I started over, refined and reevaluated the Logo commands. I worked

them. I had never done this with numbers before because I was always under the impression that numbering was immediate and that solutions were there to be had as fast as the math teacher could scribble them on the blackboard. Now I see that numbers were not religiously placed, never to be disturbed lest a curse come down upon thee. Rather, they were malleable and in fact, the most creative numbering all the more so! So, once I realized that Logo need not have been the stationary, numerical math monster I had first envisioned, I relaxed . . . and had fun . . . finally.

The obvious significance of this exercise is that despite my initial negative experiences and apprehension, I hung in there. I knew that this mathematics/Logo activity wasn't impossible because others were doing it. I knew that successes in other areas came after a struggle and that this activity was really no more difficult than learning a second language or wearing a bathing suit after eight years. And I knew, despite the real anxieties that twisted my stomach into a ferocious knot, that grammar school failures are a thing of the past and that I can activate maturity and a “what the hell attitude” and lick this thing.

So, maybe it's not the greatest piece of work to flash across your screen and maybe you do find it elementary, but I see it as a thumb-to-the-nose gesture to all those counselors and math teachers who said it couldn't be done.