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* In the Foreword to *Mindstorms*, Papert talks about his childhood fascination with gears. Describe an object from your childhood, and explain why it was important to you (then and later).

Books were introduced to me before I can remember. My father used to read in animated voices with inflection and tone changes that made the words on the page magical. It all came to life once he started to speak. Learning to read was not a difficult process, but rather was acquired in much the same way as language in my household, by immersion. Books are still important to me for information and entertainment, childrens books are a connection to my childhood, and I suppose there is an emotional connection to my father still lingering in the pages of every book I open.

* What idea (or passage) in *Mindstorms* was most provocative, intriguing, or surprising for you?

I found the whole book fascinating. As a high school math educator I often "taught" abstract concepts. It was difficult to come up with a concrete representation for algebraic concepts that I had never used practically. This experience would have been much more meaningful for the students with the use of "Microworlds". Papert describes abstract concepts as becoming concrete through, "...a computer-based interactive learning environment where the prerequisites are built into the system and where learners can become the active, constructing architects of their own learning." Piaget calls this process assimilation. It is the idea that "...the child construct his knowledge in the course of actively working with it". Hence, learning is "painless". This was so powerful to me as someone that struggled to make formulas, and algebraic rules, useful and concrete to students in a way that was meaningful; and failed miserably in doing so.

* *Mindstorms* was written nearly 25 years ago. Which ideas in the book stand the test of time? Which ones don't?

It is disturbing how his description of education with technology in the 1980s is still true today. Papert states, "Most of what had been done up to now under the name of 'educational technology' or 'computers in education' is still at the stage of the linear mix of old instructional methods with new technologies." Education is very slowly changing with the use of technology, however, QWERTY still dictates most pedagogy practiced in math classrooms.

Papert also states that, "...the cost of computers will fall to a level where they will enter everyday life in vast numbers." It is true that computers have evaded every part of our lives. However, they are used primarily for communication and information retrieval. I do not believe that this is what Papert had in mind when he made the statement. He goes on the mention that schools will be able to spend a very small percentage of educating a child on a personal computer. This is still not true. I do not believe that the amount that schools get to spend on each child would allow for each child to have a personal computer, and then still have a school to attend.

Throughout the book I think Papert forms the argument that if LOGO is used in the way he intends, that learning will become a process of discovery and quality of learning, instead of quantity. Quality is definitely the goal of most educators in schools today, but the trend set by standards and politics is quantity. There is a constant conflict between what we know "good learning" looks like, and providing students with the amount of information required. He addresses this in the statement, "Our education culture gives mathematics learners scarce resources for making sense of what they learn. As a result our children are forced to follow the very worst model for learning mathematics. This is the model of rote learning, where material is treated as meaningless...". It is disturbing that this is as true today as it was more than two decades ago.