

## **Want to Know Something? Just Google It! Now What?**

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I wonder if the following experience resonates with others from my generation. (I am a baby boomer whose memory isn't what it used to be.)

I was listening to a song on the radio during the recent holiday break. I had heard the song a least a dozen times within the past week but I couldn't remember the name of the singer. I asked my friend if she knew the artist's name but, alas, our memories had failed us. Out came the iPhone and in short order, we knew the entire history of the song (Rockin' Around the Christmas Tree), including when it was first recorded (1958), the artist (Brenda Lee), when she was born (Dec. 11, 1944), how tall she is (4 ft. 9 in.), her real name (Brenda Mae Tarpley) and dozens of other tidbits of information — some of it quite interesting and much of it utterly useless. It was amazing to be able to acquire all of this new knowledge so quickly and easily. (Brenda Lee currently lives in Nashville, Tennessee).

It occurred to me the next day how much knowledge I once possessed that has faded from my memory. Some examples:

- I used to know the names of all 77 counties in the state of Oklahoma and I could place them correctly on a map of the state (Gr. 6 Geography).
- I could recite all the prime numbers in order between 1 and 100 in less than 15 seconds (Gr. 7 Math)
- I knew the name of every important battle fought during the Civil War, including which side was victorious, the number of casualties on both sides, and the names of the prominent military leaders in each battle (Gr. 8 History)
- I could correctly classify dozens of living organisms – Kingdom, Phylum, Class, Order, Family, Genus, Species (Gr. 9 Biology).

Two questions come to mind:

First — Why can't I remember any of this now?

Second — Even if could remember some if it, what difference would it make?

Some possible answers to the second question: If my memory were a little better, I might be slightly more proficient at solving crossword puzzles without cheating, it's possible I might not embarrass myself if I were ever chosen to appear as a contestant on Jeopardy, and I could impress my friends at cocktail parties if the subject of prime numbers ever came up.

And an obvious answer to the first question: I can't remember any of this simply because it wasn't worth remembering. At the time, someone thought it was important, but none of this knowledge has any bearing on how I am required to use my mind today.

More questions:

- How important is *knowledge* in today's world — especially in light of the fact that knowing something is often as easy as “googling it”?
- How much knowledge is enough?
- Is there some small body of knowledge that is crucial for everyone to know? If so, what should be included?

These are difficult questions, especially in light of the sheer volume of knowable information that exists in 2011.

The Russian-Swiss mathematician Alexander Ostrowski once said that when he came up for his qualifying examination at the University of Marburg in 1915, it was expected that he would be prepared to answer any question in any branch of mathematics. He was required to know all there was to know. Only thirty years later in the 1940's, the mathematician John von Neumann estimated that a skilled mathematician might know, in essence, ten percent of what was available to know. With the explosion of knowledge in every field of endeavor in recent years, if Mr. von Neumann were alive today, we can only wonder what small percentage of available knowledge he would estimate that a skilled mathematician must know in 2011.

There is no doubt that knowledge of some kind and in some quantity is important and necessary. Meaningful thought is impossible without something to think about. However, with so much information available today, our focus must shift from simply *having knowledge* to *using knowledge*. Because it is usually such a simple matter to acquire knowledge (Just Google It, for example), how we use our knowledge takes on an even more crucial role.

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important in learning. He identified six levels within the cognitive domain organized from simple to complex. In order of increasing complexity, the levels are:

- **Knowledge** Can you remember or recall?
- **Comprehension** Can you explain what you know?
- **Application** Can you use information in a new way?
- **Analysis** Can you distinguish between different parts?
- **Synthesis** Can you combine parts to make a new whole?
- **Evaluation** Can you justify a stand or position?

I invite you walk into any classroom at Holland Hall to discover at which level the students are functioning. Unlike too much of my education that existed at the simplest level (knowledge), you will find our students engaged at every level of Bloom's Taxonomy. What students can remember or recall (the knowledge they possess) represents the simplest way they can use their minds and deserves only the amount of attention required to move them into the higher levels on Bloom's Taxonomy. In our classrooms, you will find our teachers providing experiences for our students that challenge them not only to know but to comprehend, apply, analyze, synthesize, and

evaluate. These higher order thinking skills, beyond what is remembered or recalled, are the ones that are crucial to the success of our students in 2011 and beyond.