

# Knowledge, Facts & Cognitive Skills

by

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This is the Print Version of the video "Knowledge, Facts & Cognitive Skills" that can be viewed by copying this, <http://www.vimeo.com/6686303> , going to the Internet, pasting it into the URL line at the top of your search engine page and clicking "GO".

## Introduction

I am Ralph Massey, an economist, a retired banker and a long-time resident of the Bahamas; and this is the second video in a series videos that update **The Learning Crisis Essay** that was published in April of his year by the Nassau Institute.

In talking with friends about this Bahamian problem, one finds that there is no shortage of ideas about what the problem really is and what is its solution.

For instance, some feel the problem is low student "self-esteem." But one cannot help but comment "How does one build self-esteem?" and "Can one have self-esteem in a demanding world when one is linguistically and numerically illiterate or an academic failure?" In fact, a lack of basic language and numerical skills marginalizes one in virtually all "legally acceptable" occupations.

The economic consequences for the Bahamas are real; and fortunately are now publicly recognized.

They were discussed in **The Learning Crisis Essay** published in April 2009 by the Nassau Institute and in the first video in this series,

## Knowledge & Facts

As I have stated Language and Numbers are the two great inventions of mankind and are the cornerstones of all learning.

- They are the doorway to the acquisition, communication, organization and storage of all knowledge, **and**
- They are pivotal to all subsequent learning.

It starts with the parent-child routine. If you have had a child, you know it. "This is your nose.", "This is your ear." and "How old are you?" The child learns to associate a concrete thing with an abstract sound. This is how the child builds a vocabulary.

In the case of numbering the child associates an abstract sound to a single object or being; or he associates a sound to a relationship between one or more objects or beings. That is how the mind grows.

For the purposes of this presentation let's call this **factual knowledge**; it is terribly important; and, as a parent of seven children, I can say that it taxes the time, patience and perseverance of the parent. But...that is what good parenting is all about.

## Cognitive Skills

Now...there are also cognitive skills. They are -

- **Attention,**
- **Concentration,**
- **Memory,**
- **Self-discipline and**
- **Symbolic and Logical Thinking.**

In the simplest case, **Cognitive Skills** process facts.

But Cognitive skills are much more important than this statement suggests.

Perhaps, the most important role of cognitive skills is their ability to control impulses and feelings. This ability is called -

### **Self-Discipline and Delayed Gratification;**

and it can best be understood within the context of the Marshmallow Study.

## The Marshmallow Study

In 1967 Stanford University Psychology researcher Michael Mischel did the "now famous" Marshmallow Test. <sup>1</sup>

One by one he offered 4-year olds a tasty problem. He would separately and in a neutral setting place a marshmallow on a plate in front of them that they could eat.

**BUT FIRST**, he gave them an alternative. If they could wait for his return after running an errand, he would give them a second marshmallow to eat at the time of his return.

Two-thirds grabbed the first marshmallow...some even before he left the room; and one-third waited 15 minutes for him to return to get the second marshmallow and to eat them both.

## 14-Years later

The importance of this experiment was not established until 14 years later when those students were interviewed. The one-third that waited for the second marshmallow scored 210 points higher on the SAT college entry exams, equal to "the average differences between that economically advantaged students versus economically disadvantaged students."

They were more positive, self-motivated, persistent in the face of difficulties, and able to delay gratification in pursuit of their goals. Those that grabbed the marshmallow were more troubled, stubborn and indecisive, mistrustful, less self-confident.

The Marshmallow Test showed the important interaction of Cognitive Skills and impulses and feelings. Self-Discipline and Delayed Gratification are so important for sound judgement and constructive living.

Politically and socially they are important for the development of the nation's youth and the social stability of the country.

In the world of economics, they are the basis for both sound individual and collective saving and investment.

## Harlem Children's Zone Theory

I want to turn now to the Harlem Children's Zone's child development theory. It embraces three ideas:

- Education literally begins in the womb. Children that do not get good early childhood care end up permanently handicapped.

- There are periods just before spurts in emotional, physical and cognitive growth when this care is critical.
- “Without significant interventions, disparities in cognitive advantages at the very early stages in development often lead to ever-widening differences in educational achievements as children grow older.”
- The objective is to have happy and healthy children who enter school ready to learn.
- It accomplishes this goal by changing the culture within which the child is raised.

### **The Bottom Line**

There are three basic “bottom line” issues related to cognitive skills -

### **The Proposed Baby College**

The Learning Crisis Essay proposed a school patterned after the Baby College of the Harlem Children’s Zone that started in a 24-block area of Harlem in New York City. It started in a largely low income neighborhood plagued by a host of ills....poverty, high unemployment, single parent families, high school dropout rates, etc. <sup>2</sup>

- The proposed school is for pregnant mothers and mothers with children up to 3 years old.
- It actively solicits these mothers for a nine week course in child rearing and development.

1. If the Basic Cognitive Skills are not acquired by the fifth grade, they are not likely to be acquired thereafter; or they will be acquired only with a great deal of effort.
2. Socially deviant behaviors such as violence, crime, and addictions occur where the cognitive skills are overwhelmed by impulses and feelings.
3. The cost to individuals, families and society as a whole of dealing with such behavior can be substantial.

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## **The Author**

Ralph J Massey graduated magna cum laude - Phi Beta Kappa from Case University, Cleveland, Ohio, and subsequently received a masters degree in Economics from the University of Chicago where he was a Harry A. Millis Fellow and a Research Associate.

During his 36 year business career he worked for the Ford Motor, Kimberly-Clark, Johns Manville and Chemical Bank...that is now a part of JPMorgan Chase...where he was seconded to The Bank of New Providence, Nassau, Bahamas.

He is a founding member of the Nassau Institute and worked as an Economist for the Coalition for Education Reform.

## **ENDNOTES**

<sup>1</sup> <http://www.sybervision.com/Discipline/marshmallow.htm>

<sup>2</sup> <http://www.hcz.org/>