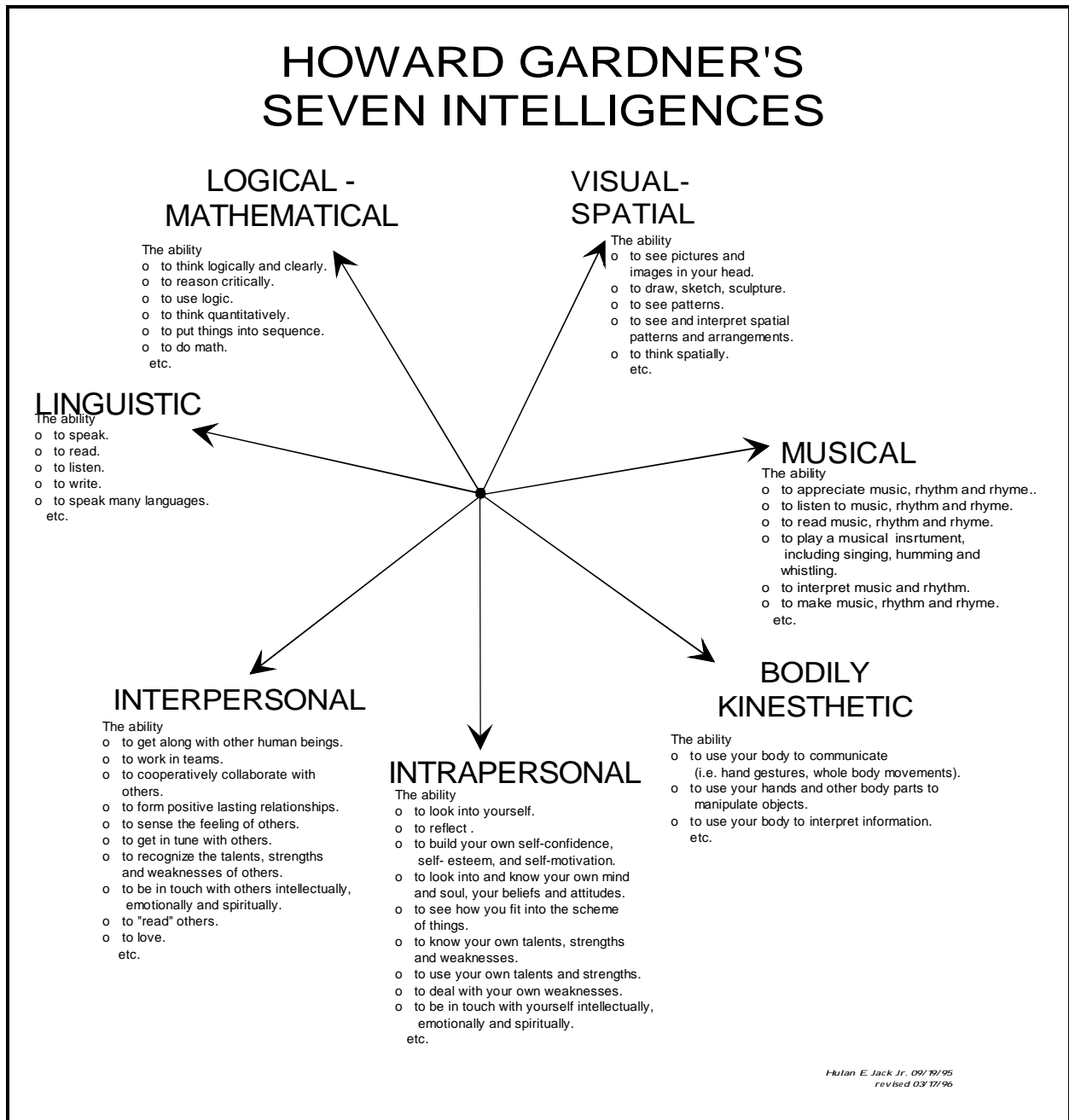


## **Description**

This is a short article on the Seven Intelligences theory of Howard Gardner. The illustration on the 1<sup>st</sup> page shows the seven intelligences and gives some of the main characteristics of each. After a short discussion I apply it by giving my interpretation of the minimal distribution of these intelligences for a number of professions. The article ends with a short bibliography.



## 1. INTRODUCTION

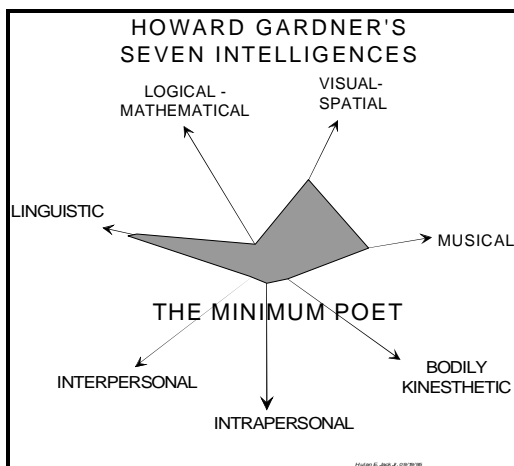
Howard Gardner is a psychologist at Harvard University. His 1983 book "Frames of Mind" developed a theory that broadens and expands our ideas about intelligence. He argues that there are seven intelligences. The above figure briefly outlines each. Every individual has each to varying strengths. They all come into play in our thinking and learning processes. In fact the more we use all of them, the more effective the learning. In "Multiple Intelligences", 1993, he and others develop ways of using all of these intelligences in the learning process and the educational system. We will examine some of these in Section 3, below. The figures and discussions that

follow below illustrate some specific examples.

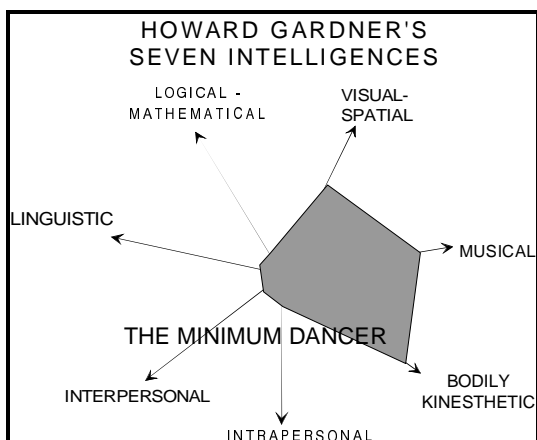
Our standard tests, such as standardized tests in academic subjects, Intelligence Tests and the SATs, exclusively concentrate on the linguistic, logical-mathematical and some spatial. The method of administering these tests is exclusively linguistic since it is all reading and written response.

## 2. EXAMPLES OF HOWARD GARDNER'S SEVEN INTELLIGENCES

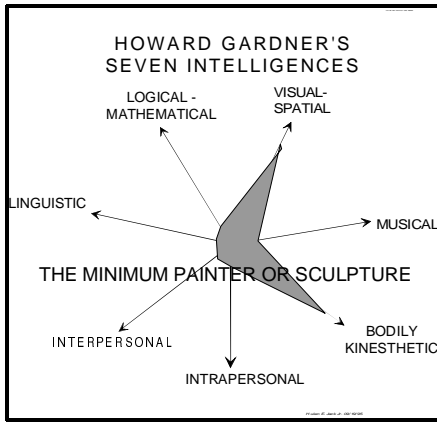
The following diagrams show my interpretation of the minimal extent of the intelligences that those in various fields must have. The farther from the center, the higher that intelligence.



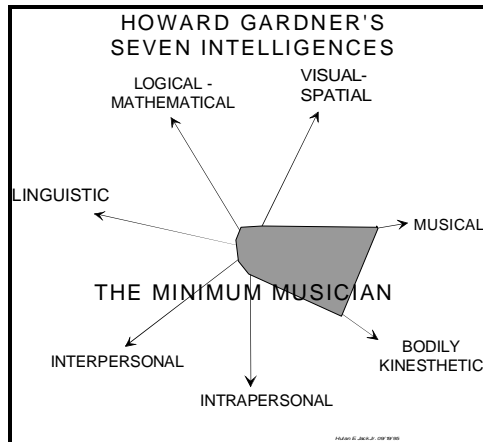
Poets at very minimum must have very high linguistic intelligence to make their magic with the words. But, they must also have fairly high visual-spatial intelligence to create the images conjured by the words, and fairly high musical intelligence to maintain the rhythm. The levels of other intelligence may be optional.



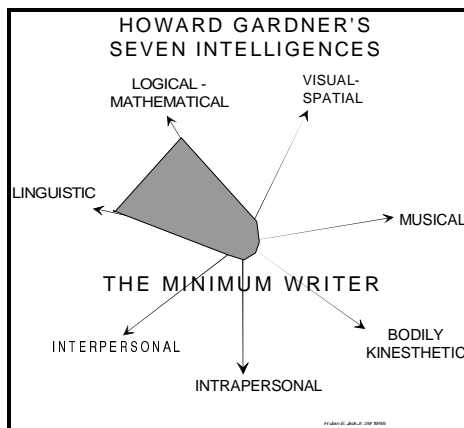
Dancers must at least have very high visual-spatial intelligence to navigate their bodies within the confines of their spatial environment; and high musical and bodily-kinesthetic intelligences since they are making deliberate expert use of their bodies in harmony with music, whether external or generated in their own minds. The levels of other intelligences required depends on other things.



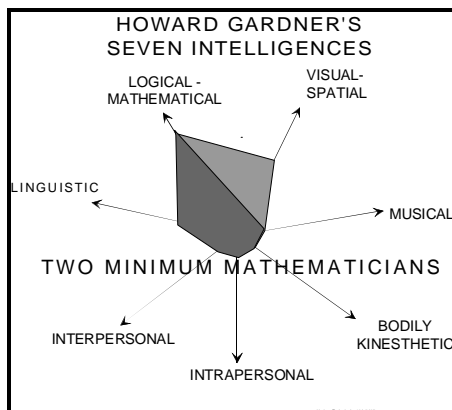
Painters and sculptors must at least have high visual-spatial intelligence to create the images; and high bodily-kinesthetic intelligence to convert their internal images to physical media (canvass, stone, clay, etc.).



Musicians must at least have high musical intelligence to create their musical visions; and high bodily-kinesthetic intelligence to convert those musical images to sound by playing their instruments (this includes using the body as an instrument as in singing and whistling).



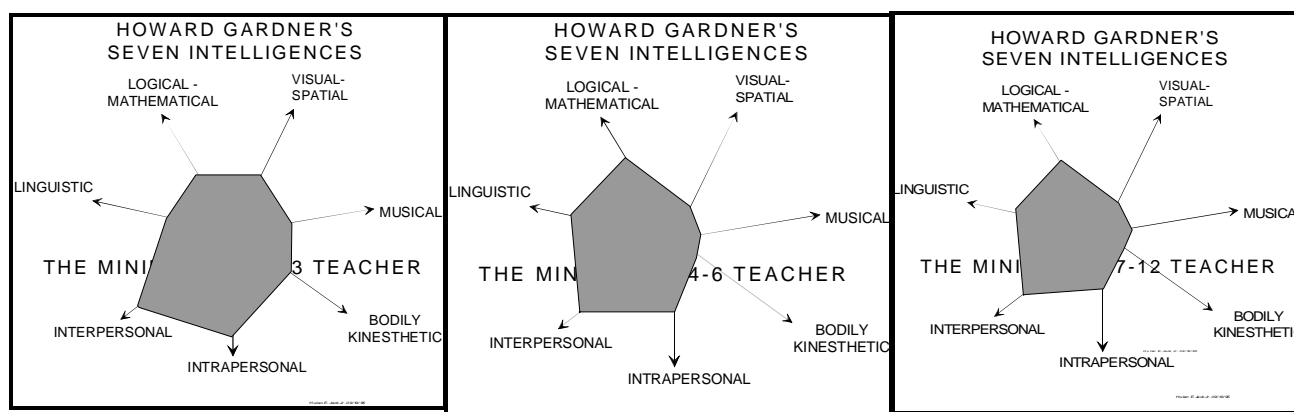
Writers must at least have high linguistic intelligence because words are their trade; and high logical intelligence to get things in a logical order and sequence. The importance of the other intelligences may vary with the type of writing.



Mathematicians, including mathematical-theoretical scientists, must obviously have high logical-mathematical intelligence. But, some, the verbal thinkers, require high linguistic intelligence, while, the visual thinkers, require high visual-spatial intelligence. Albert Einstein, Nikola Tesla, Michael Faraday are examples of highly visual-spatial thinkers.

The minimum intelligences that teachers must have varies with the grade level. Those who deal with very young children, Pre-K through about 3rd grade require high interpersonal intelligence to be able to "read" the needs of the children in order to make them feel secure and to help them in their early development. They need high intrapersonal intelligence to be able to see into themselves in terms of their own attitudes to enhance those that aid the children and to effectively deal with those that are harmful to the children. Then they need moderate levels of all the other intelligences because of the wide range of activities they do with the children.

As the children get older, the teachers' need for high interpersonal and intrapersonal intelligences somewhat reduces. The demand for higher levels of logical-mathematical and linguistic intelligences rises.



### 3. The Gardner Model in Teaching and Learning

TO COME

Howard Gardner, **Frames of Mind: The theory of multiple intelligences** Basic Book, Inc., Publishers 1983 (currently in print). [ISBN 0-465-02508-0 ] [BF431.G244 1983 153 83-70765]

Howard Gardner, **Multiple intelligences: The Theory in Practice A Reader**: Basic Book, Inc., Publishers 1993. [ISBN 0-465-01821-1 ] [LB1060.G357 1993 370.15'23]

Thomas Armstrong, **In Their Own Way: Discovering and Encouraging Your Child's Personal Learning Style**: Tarcher-St.Martins Press, 1987. [ISBN 0-87477 - 446-2] [LC4705.A76 1987 371.9 87-6445]

Thomas Armstrong, **7 KINDS OF SMARTS: Identifying and Developing Your Many Intelligences**: PLUME, the Penguin Group, 1993. [ISBN 0-452-26819-2] [BF431.A579 1993 153.9-dc20 92-21353]