

Does intelligence really decrease with aging?

Author: Keithly Tongai . November 2019

Intelligence can be defined as the competency for logic, understanding, self-awareness, learning, emotional knowledge, reasoning, planning, creativity, critical thinking, and problem-solving. It is also simply the ability to acquire and apply knowledge and skills. Everyone does have a certain level of intelligence, but does it decrease as you grow, or do you acquire more in the process.

There are nine types of intelligence which are logical-mathematical, linguistics, naturalist, interpersonal, intra-personal, spacial, existential, bodily-kinaesthetic and musical

In the 1960s, Raymond Cattal divided intelligence into two kinds; *Fluid intelligence* and *crystallized intelligence*. *Fluid intelligence* is the knowledge acquired by reasoning and solving problems in a novelty way. Both types of intelligence increase throughout childhood and adolescence. Some of the features of fluid intelligence peak in adolescence and begin to decline progressively beginning around age 30 or 40. Examples of fluid intelligence include solving puzzles, identifying patterns, etc.

A study by Jaeggi, Buschkuhl, Jonides, and Perrig, published in 2018, *Improving Fluid Intelligence with Training on Working Memory*, proved that intelligence can be increased to a significant degree through training.

Crystallized intelligence is the knowledge acquire through experience and education. While fluid intelligence decrease with aging, crystallized intelligence continues to grow throughout adulthood. Examples of crystallized intelligence include knowing the DNA system, degrees at which water boils and many more. *Crystallized intelligence* can, therefore, be measured through vocabulary, grammar, reading comprehension and other similar tests, as well as quizzes, game shows and trivia games

New researches has shown that not all aspects of intelligence age in the same way, and while some peak during high school and college, others continue to improve after 40.

To investigate how intelligence changes with age, psychologists from Massachusetts Institute of Technology (MIT) and the Massachusetts General Hospital in the US (2015) tested 48,537 people between the ages of ten to eighty-nine who had visited the sites GamesWithWords.org and TestMyBrain.org, where they conducted language, IQ and memory tests that measured their emotion-recognition, working memory, number skills, and vocabulary.

Joshua Hartshorne and Laura Germine presented evidence from 48, 537 people from standardized IQ and memory tests. The results revealed that processing speed and short-term memory for family pictures and stories peak and begin to decline around high school graduation; some visual-spatial and abstract reasoning abilities plateau in early adulthood, beginning to decline in the 30s; and still other cognitive functions such as vocabulary and general information do not peak until people reach their 40s or later

They found that, depending on your definition of intelligence, the skills peak at very different times throughout your life. While young participants mostly did the best on the number-to-symbol coding tasks, with a peak age of around 19 to 20 years old, working memory peaked between the mid-20s and mid-30s, before starting to slowly decline. And while 20-somethings were really good at recognizing someone's emotions from simply looking at a photo of their eyes, this ability kept improving all the way up until the age of 48, after which the skill dropped very, very slowly. Vocabulary just kept getting better with age, finally peaking in the 60s or 70s, without any obvious sign of decline.

Therefore, from the researches above, intelligence does not decline but partly decrease with age while part of it increases with age

A few things you can implement in your day to day lives that will help you train and improve your fluid intelligence are trying to learn from others, seeking out new challenges, reading widely and tackling new problems with new strategies.

Keithley Tongai is a Consultant intern at Industrial Psychology Consultants (Pvt) Ltd, a business management and human resources consulting firm.

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