

## WHAT IS SOI?

SOI is Structure Of Intellect—a systematic model of human intelligence. Dr. J.P. Guilford developed the model in military and academic research, in projects to identify the specific factors of intellectual ability. Dr. Mary N. Meeker applied the model to the practical needs of school and workplace settings. She developed an assessment instrument and curriculum for each ability, and matched each one to job requirements.

## BEYOND IQ

It is now common to hear of multiple intelligences. That is, the human mind harbors many different intellectual abilities, each of which may be low or high. So one IQ score cannot represent the complex that is our human intelligence. Rather, many scores are required.

This concept can be traced back to World War II, when Dr. J.P. Guilford began to identify specific intellectual abilities. The US Army Air Corps was concerned that 35% of Flight School trainees “washed out.” Money and time were being wasted. Dr. Guilford was asked to develop a screening test more reliable than standard IQ tests.

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### Assessment and Training for Thinking Skills and Information Processing, Applying a Research-Proven Model of Human Intelligence.

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“Organizational effectiveness  
can only be improved when individuals  
... value their own personal development.  
... SOI can help us accomplish that.

—Gloria Ward,  
Division Manager, Human Resources,  
Chief Financial Office, AT&T.

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## MULTIPLE INTELLIGENCES

Dr. Guilford identified 8 specific intellectual abilities crucial to flying a plane. Developing screening tests for these abilities was a key factor in the washout rate being cut to about 10%.

Dr. Guilford’s post-war research identified a total of 120 discrete intellectual abilities. At the University of Southern California, 20 years of Guilford research was funded by the US Navy, the National Science Foundation, and the US Office of Education. He published widely on what he named the Structure of Intellect model. The basic concept is that intelligence is not a single score, like the IQ, but actually a structure of 120 different intellectual abilities. And like physical abilities, these intellectual abilities can be enhanced through a regimen of thinking exercises.

## MENTAL FITNESS

Like physical abilities, the 120 SOI abilities can be exercised, built up, and developed. Teaching this lesson has been the lifelong goal of Dr. Mary N. Meeker. Says Dr. Meeker: “It would seem that teaching the ability to learn should be considered as equally important a goal as is a mastery of prescribed content.”

## ENHANCING THE MIND

Building on the work of her mentor, Dr. Guilford, she applied his model to day-to-day learning—in the classroom or on the job. Dr. Meeker identified from the Structure of Intellect model the essential intellectual abilities necessary for academic and job success. Then she developed testing and training for each ability. These 26 intellectual abilities are tested by the SOI *Assessment for Careers and Vocations*, Form CR

Once tested, participants are given individualized training plans to enhance their optimum SOI intellectual abilities while building up any SOI abilities that are average or below. Training is in the form of self-study modules requiring about 120 minutes each,

Intellectual abilities can be enhanced. So instruction should include not just the imparting of facts, but strengthening intelligence, too!

## SOI SUCCESS

**Careers:** SOI assessment and training is enhancing self-development of managerial personnel.

**Vocations:** SOI has been used to counsel workers displaced by industrial plant closings.

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“The Air Corps pilot selection studies conducted during World War II under [Guilford's] direction were a major contribution towards establishment of psychology as an essential part of scientific personnel selection and management.”

—Robert R. Knapp,  
*Knapp Publishing*

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“J.P. Guilford's Structure of Intellect lends itself both as a diagnostic tool for assessing the individual level of performance and as a curriculum model for development of educational plans, either bolstering a weakness or using a strength as a ‘motivational device.’ Utilizing the SOI, educators can push far beyond the narrow confines of IQ, to full development of our most precious resource—our youth.

—Dorothy Sisk,  
*Former Director, Office of Gifted and Talented, US Office of Education.*

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**Creativity:** SOI can increase the ability to think divergently—to generate new ideas with fluency and originality.

**Reasoning:** SOI can build up the mental ability to extract nuances of meaning from extended passages of prose.

**Memory:** SOI can develop memory skills so that people consciously remember concepts, names, figures, etc., that have only been encountered incidentally.

**Logic:** SOI can enhance the ability to speculate on the probable effects that follow a given cause, and to analyze back to the probable causes from a given effect.

**Performance:** SOI has significantly increased retention and academic performance for at-risk college students.

**Learning:** SOI training has made traditional education for psychiatric patients more successful by increasing their learning abilities.

**Corrections:** SOI assessment is being ordered by the Court, as judges become familiar with it; and SOI training has developed the learning abilities of juvenile offenders, making them capable of taking better advantage of educational opportunities.

**Math and Science:** SOI training has boosted minority enrollment in mathematics and science by 600%, leading to significant increases in Stanford Achievement Test scores.