

WHAT IS SOI?

SOI stands for Structure Of Intellect - a theory of human intelligence which describes the abilities for acquiring, assimilating, and processing information – the basis of human learning. SOI testing and training are based on the Structure of Intellect model.

The Structure of Intellect theory was developed by Dr. J. P. Guilford. His research began in 1940 as part of the war effort. The Army Air Corps desperately needed to train pilots and navigators, but more than 35% of the men were unable to adequately finish the training.

They called on Dr. Guilford to create a better test for selecting new recruits. Using a statistical technique called factor analysis, he constructed a selection test that reduced the failure rate to less than 5%.

Seeing the value of this approach, the government supported Guilford's testing research for the next twenty years. The result was the Structure of Intellect model of human intelligence.

The general approach that Dr. Guilford used was:

1. Find the intellectual abilities needed for pilots and navigators to learn their jobs.
2. Test new candidates to see if they have those intellectual abilities.
3. Select the candidates that have those abilities and teach them their jobs.

To transform this approach to education we needed to:

1. Find the intellectual abilities needed for students to learn the basic curriculum.
2. Test students to see if they have these intellectual abilities.

3. Train students on any of their abilities that are less than adequate for learning, and then teach them the curriculum.

Notice the difference between Guilford's use of the test results to select the best candidates for learning the job and Dr. Mary Meeker's use of the theory to train those students whose abilities are less than adequate for optimal learning.

That is how Mary transformed a selection strategy that had proved to be successful into a training strategy that was appropriate for education.

The final step in establishing the training strategy has been demonstration experiments which compare levels of performance with and without SOI training.

The results of many such demonstration studies have validated the difference that abilities preparation can make.

So why is SOI abilities training not more widespread in schools?

The prevailing attitude in schools is that learning failures are due to inadequate teaching. That is why they are constantly looking for the golden curriculum or golden teaching method.

Better teaching can never be faulted, but the principal focus for improvement should be on the students and their preparedness to learn.

That is the SOI mission.