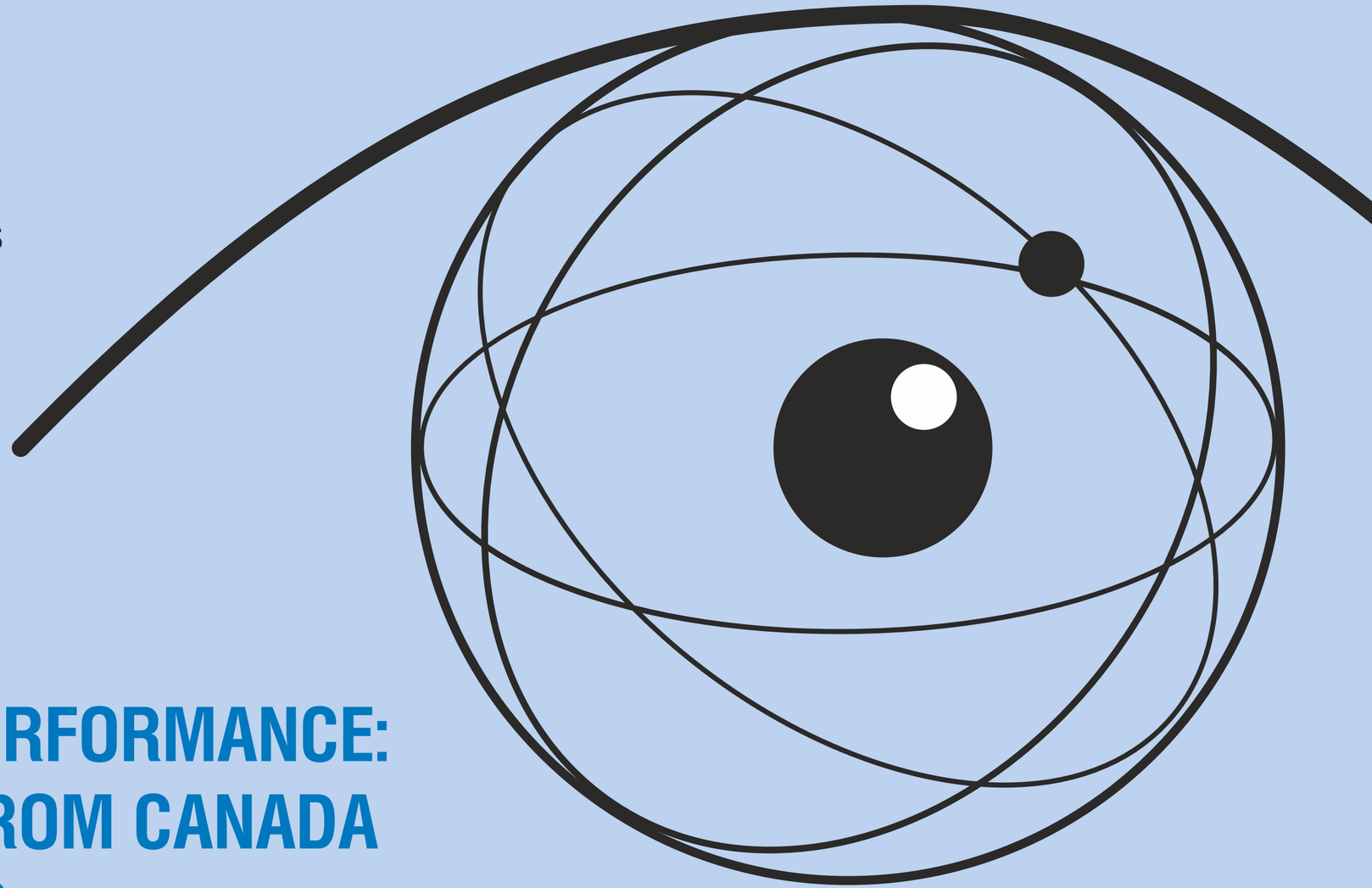
29th–30th OF SEPTEMBER 2016 INTERNATIONAL CONFERENCE

USE OF THE EDUCATION QUALITY RESEARCH RESULTS: PROBLEMS AND PROSPECTS



IMPROVING SCHOOL PERFORMANCE: A CAUTIONARY TALE FROM CANADA WITH A HAPPY ENDING

T. SCOTT MURRAY

SCHOOLS GENERATE THREE TYPES OF OUTCOMES:

THEY IMPART:

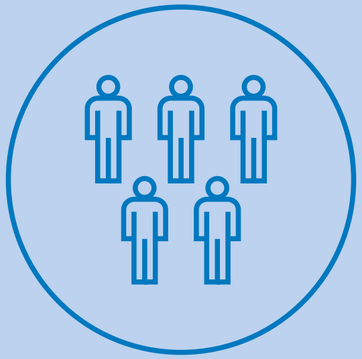
Technical skills and knowledge

Cognitive skills that are needed to apply technical skills and knowledge

Attitudes and beliefs that encourage the application of these skills in work

… BUT THE GAME HAS CHANGED:

Schools main job used to be select the top performing students who would go on to post-secondary education, the rest got basic skills



Now education systems need to impart higher levels of skills to a much higher proportion of the population to prepare them for the demands of post-secondary education

To achieve this goal schools need to improve the literacy and numeracy skills of students

IRONICALLY THE SOVIET SYSTEM REALIZED THE CENTRAL IMPORTANCE OF LITERACY IN 1948

THE DEFINITION OF LITERACY HAS EVOLVED CONSIDERABLY OVER THE PAST 30 YEARS

Advances in theory have have provided a means to understand the determinants of task difficulty

The improved understanding of task difficulty has supported the development of much more reliable assessments

Literacy is now defined as a continuum than moves from learning to read to reading to learn

LEARNING TO READ TO READING TO LEARN: WE NEED MORE PEOPLE ABLE TO FUNCTION AT LEVEL 3 IN THE PRE-FRONTAL CORTEX

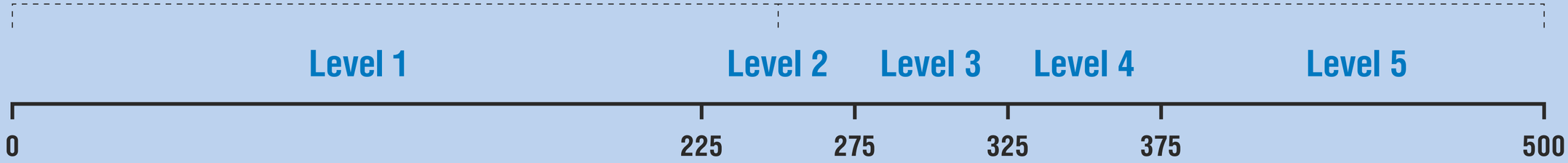
Students and workers need the cognitive skills to support efficient acquisition of technical skills and knowledge and then to apply these skills in work to globally competitive levels

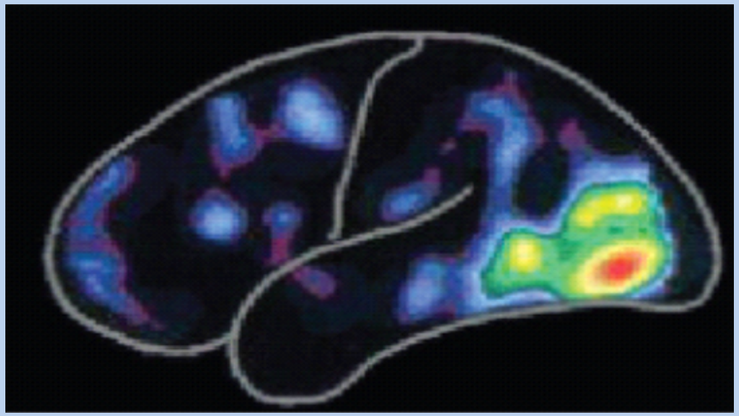
Learning to read

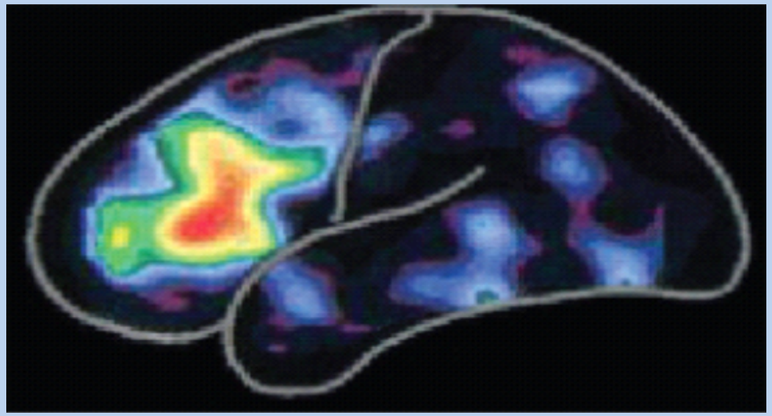
Proficiency dominated by mechanics of reading

Reading to learn

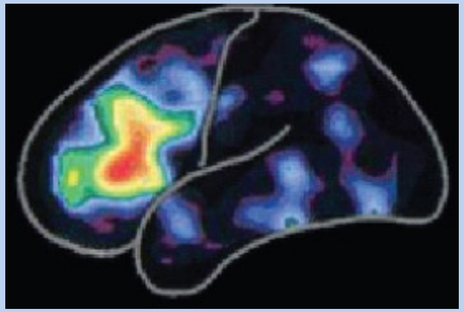
Proficiency dominated by cognitive strategies

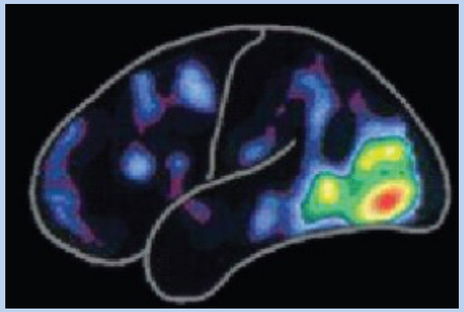


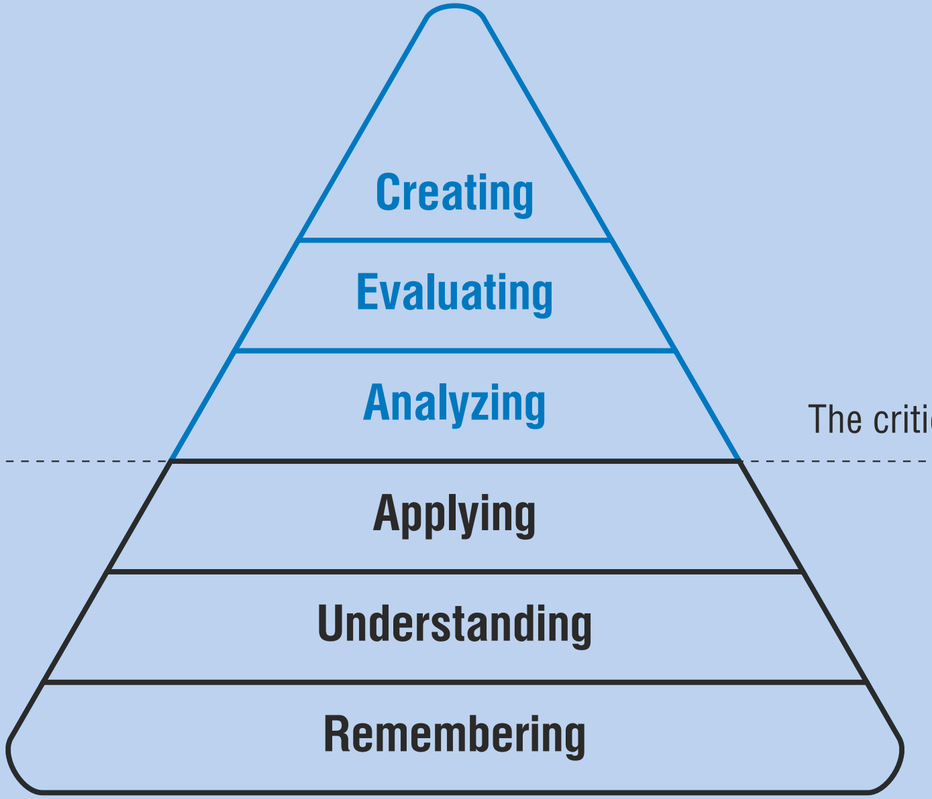




THE THRESHOLD BETWEEN LEARNING TO READ AND READING TO LEARN FALLS AT A CRITICAL THRESHOLD IN BLOOMS REVISED TAXONOMY

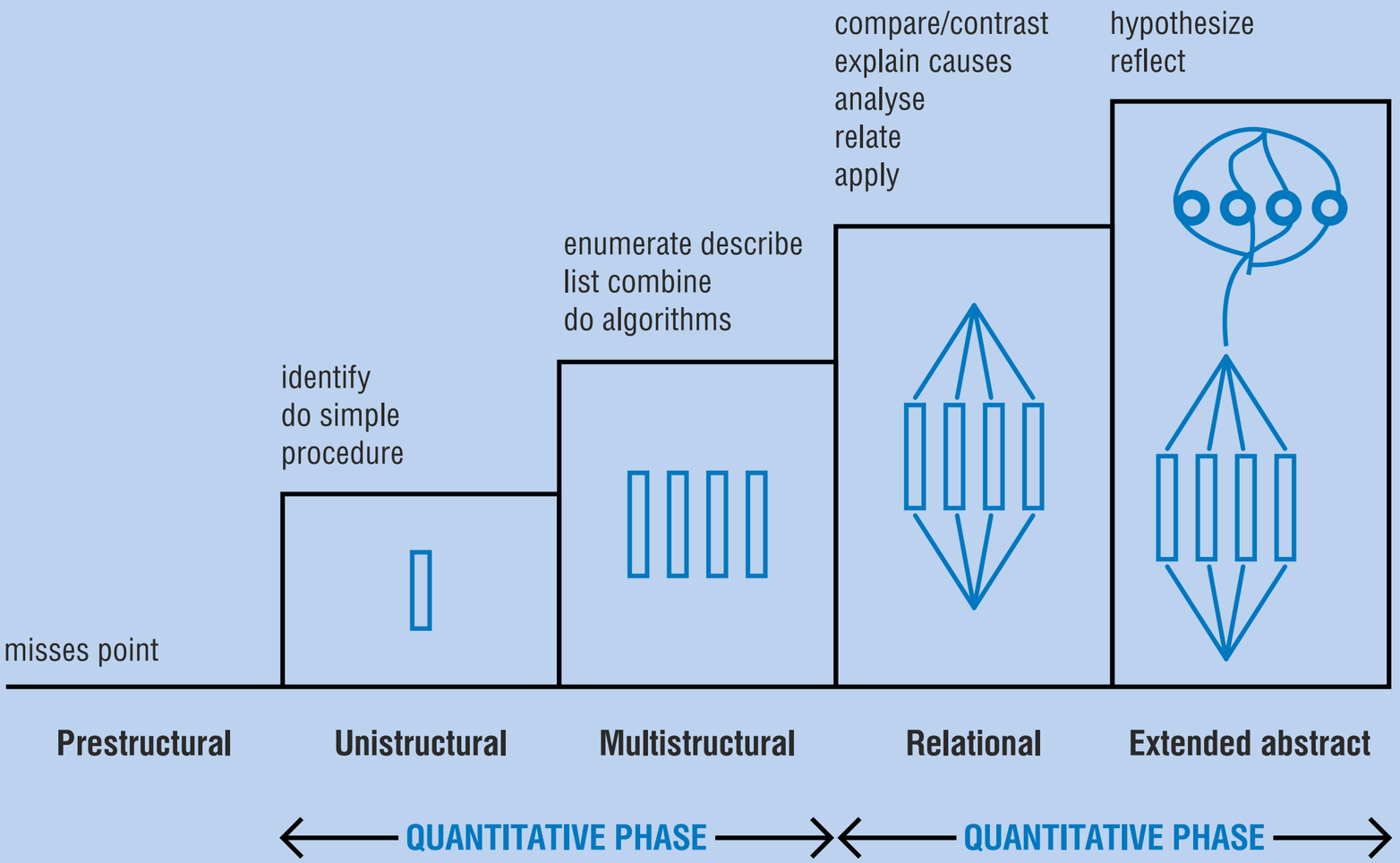






The critical boundary between Level 2 and 3

...AND IN THE SOLO TAXONOMY



CANADA HAS INVESTED HEAVILY IN USING ASSESSMENT TO IMPROVE LEARNING OUTCOMES:

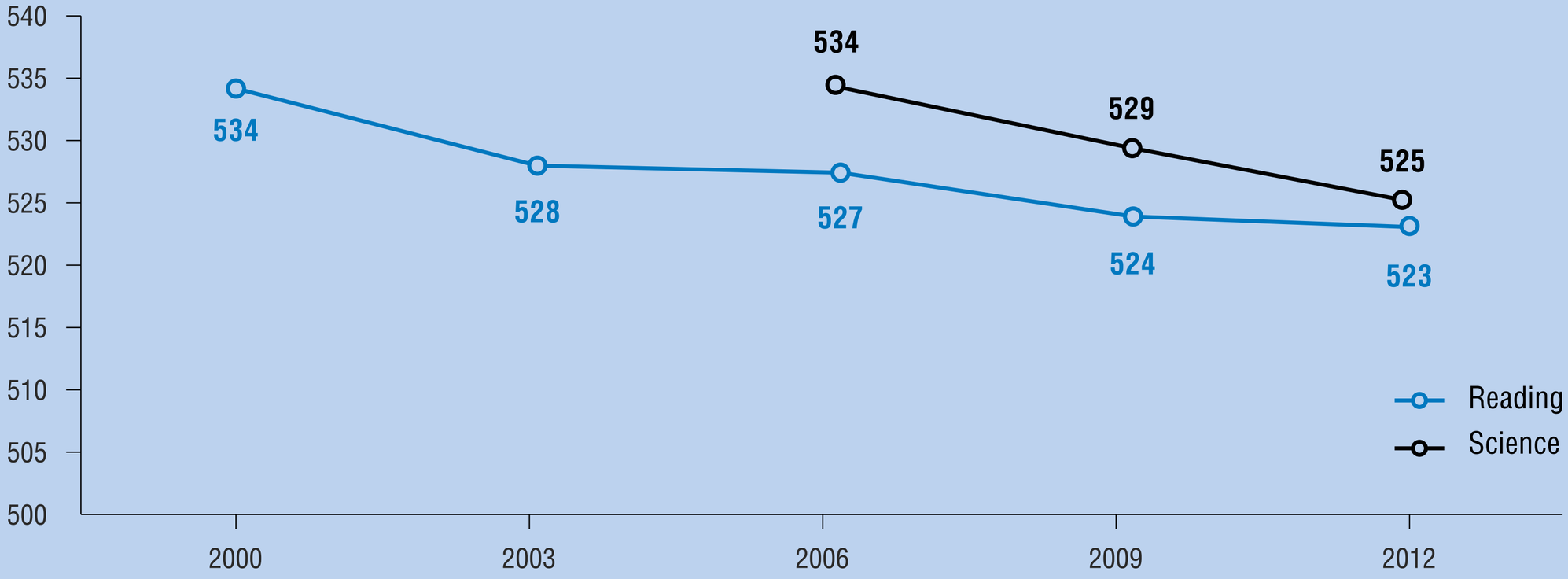
CANADA:

Participated in PIRLS, TIMSS and PISA to provide assessments of literacy, math and science outcomes

Established a national assessment of literacy, math and science outcomes

Established provincial assessments of literacy, math and science outcomes at various grades

THE RESULTS OF THESE ASSESSMENTS REVEAL THAT ROUGHLY HALF OF SECONDARY GRADUATES DO NOT REACH LEVEL 3. THESE RESULTS HAVE PRECIPITATED LARGE INVESTMENTS BUT PISA SCORES CONTINUE TO FALL



OUR ANALYSIS SUGGESTS A DIFFERENT APPROACH TO ASSESSMENT IS NEEDED…KEY WEAKNESSES INCLUDE:

All the current assessment resultstell teachers
is that a significant number of them are doing a bad job

The assessment results are seldom adjusted to account for differences in the characteristics
of the students being served or for factors over which teachers and schools have control

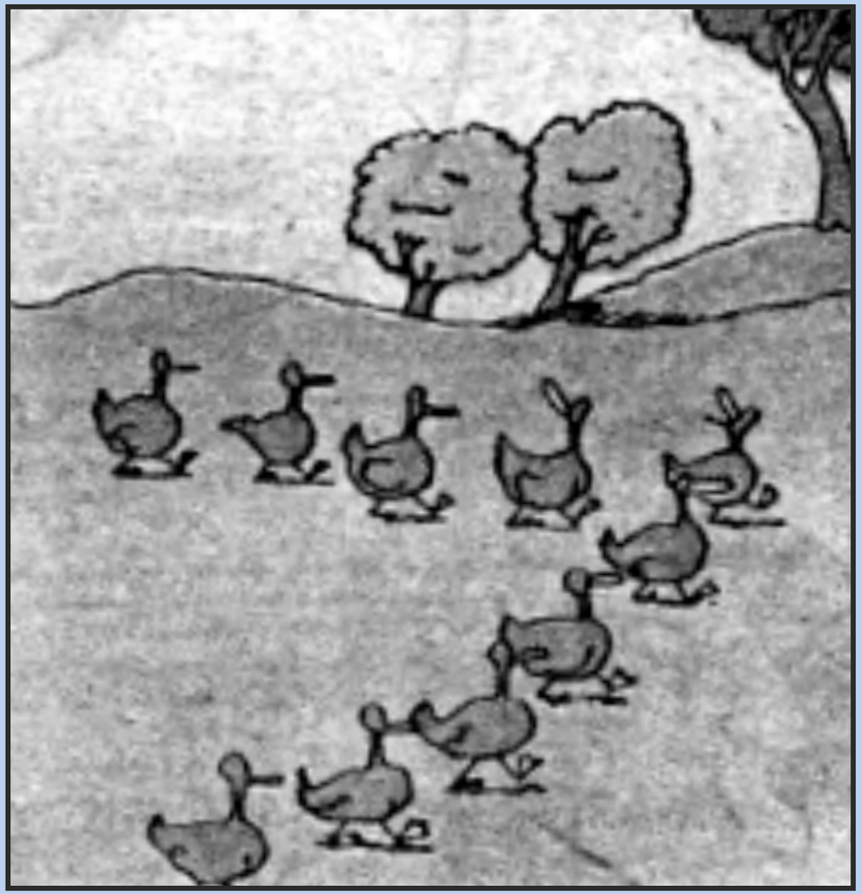
Assessment results only arrive when the assessed
students have moved to the next grade

Assessments results are not reliable for individual
students so do not identify the students are struggling

Assessments provide relatively little information about students
in the lower ranges of the scales, the very students who need help

ACCOUNTABILITY AND PERVERSE EFFECTS: SOMETIMES THE RESULT IS NOT AS EXPECTED:

THERE IS NO MECHANISM TO TRANSFER INNOVATIONS ONCE IDENTIFIED

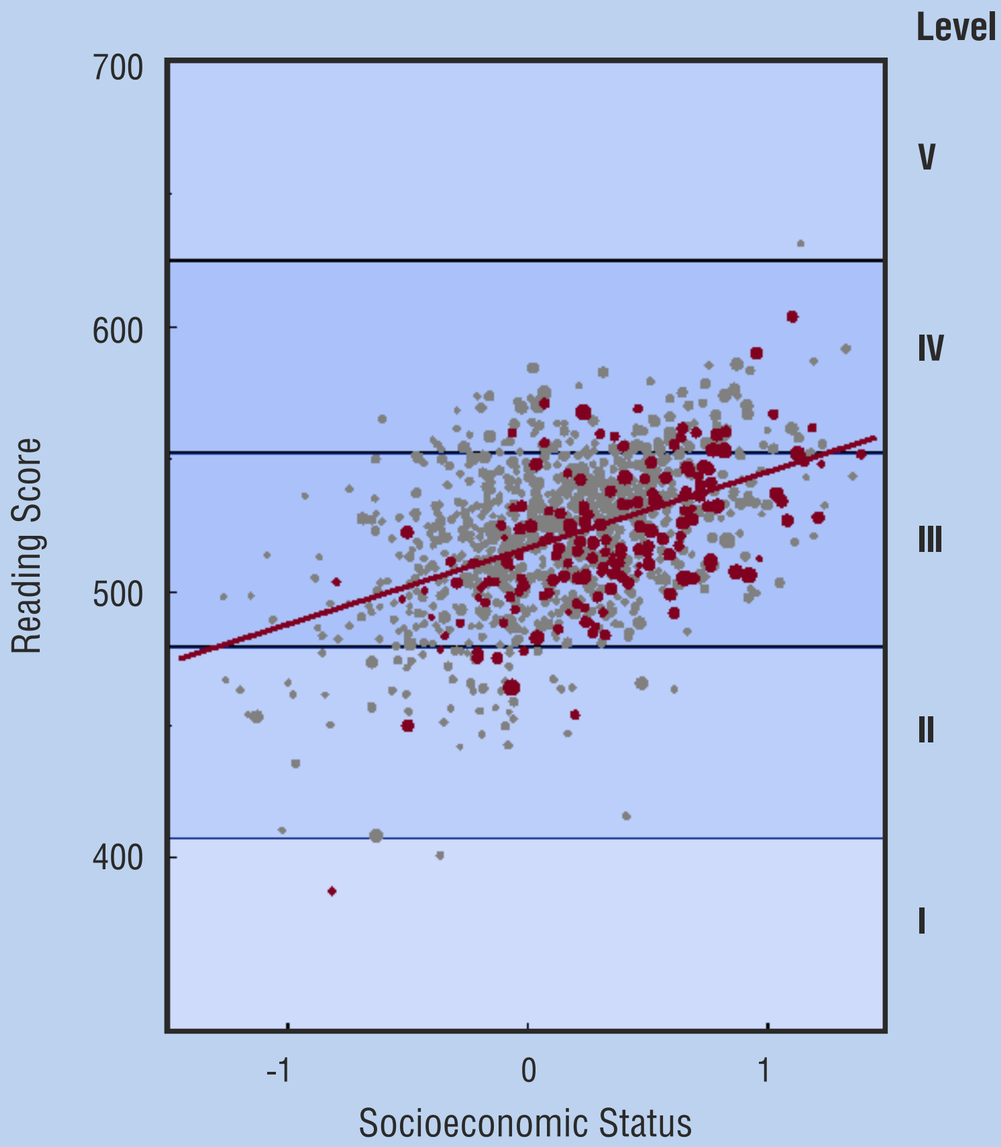


SCHOOL PROFILE FOR ONTARIO

The analysis of socioeconomic gradients (Figure 3) indicated that Ontario students scored well below their counterparts in Quebec and Alberta, across the full range of SES. The school profile above shows that the SES intake of most schools in Ontario is above the OECD mean. However, the majority of Ontario's schools scored below the regression line, indicating that they were not performing as well as other Canadian schools with comparable student intake. Thus, Ontario's relatively low overall performance is not attributable to a few low SES schools with low performance. Rather, it is associated with a more general pattern of slightly lower than expected performance among the majority of its schools.

Source: J. D. Willms, UNB

ONTARIO UNDERPERFORMS ACROSS THE BOARD...



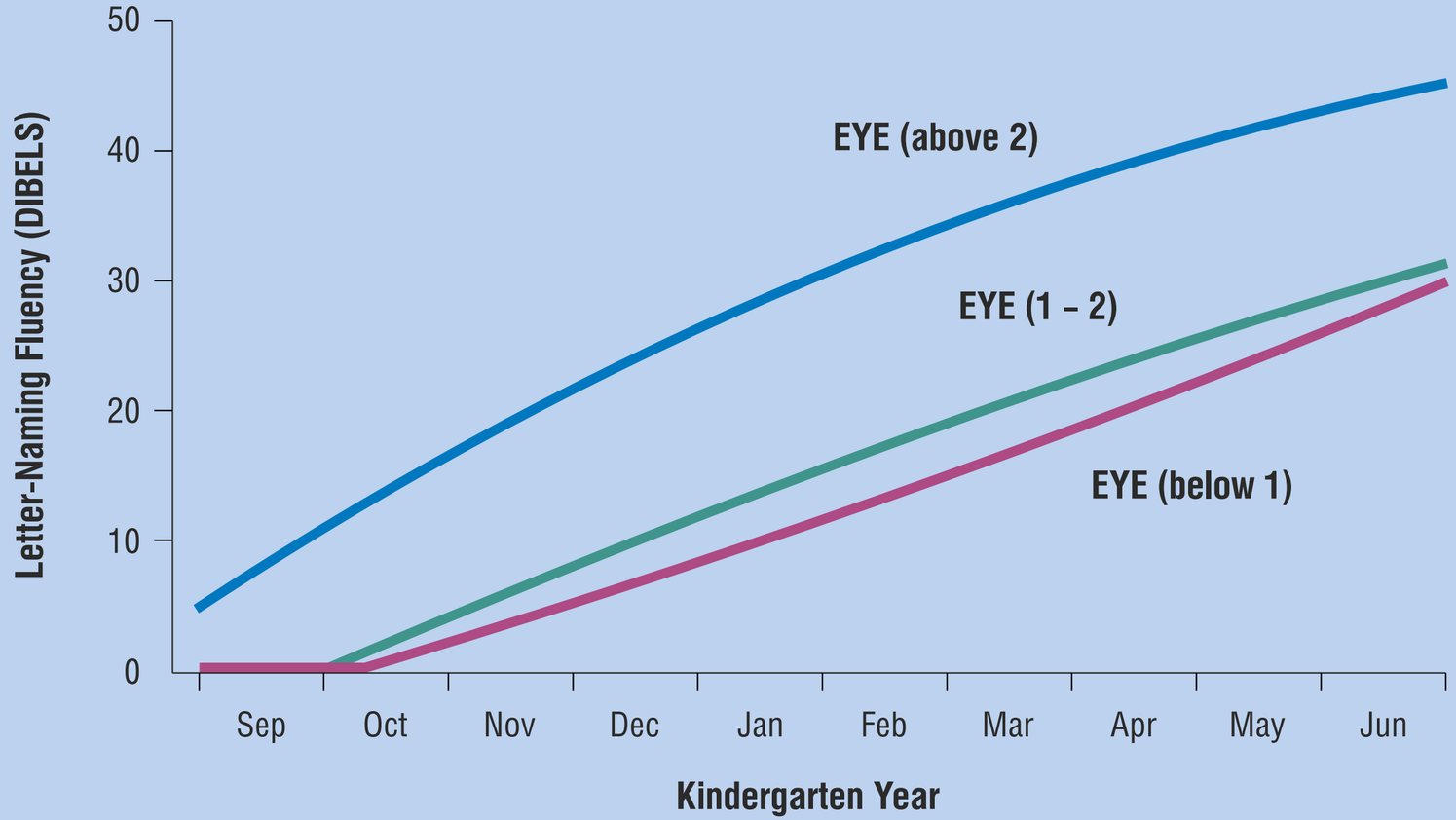
A NEW GENERATION OF ASSESSMENTS IS YIELDING THE LONG AWAITED SCHOOL IMPROVEMENT:

ASSESSMENTS THAT GIVE INDIVIDUAL RESULTS IN REAL TIME AND IDENTIFY STRUGGLING STUDENTS I.E.:

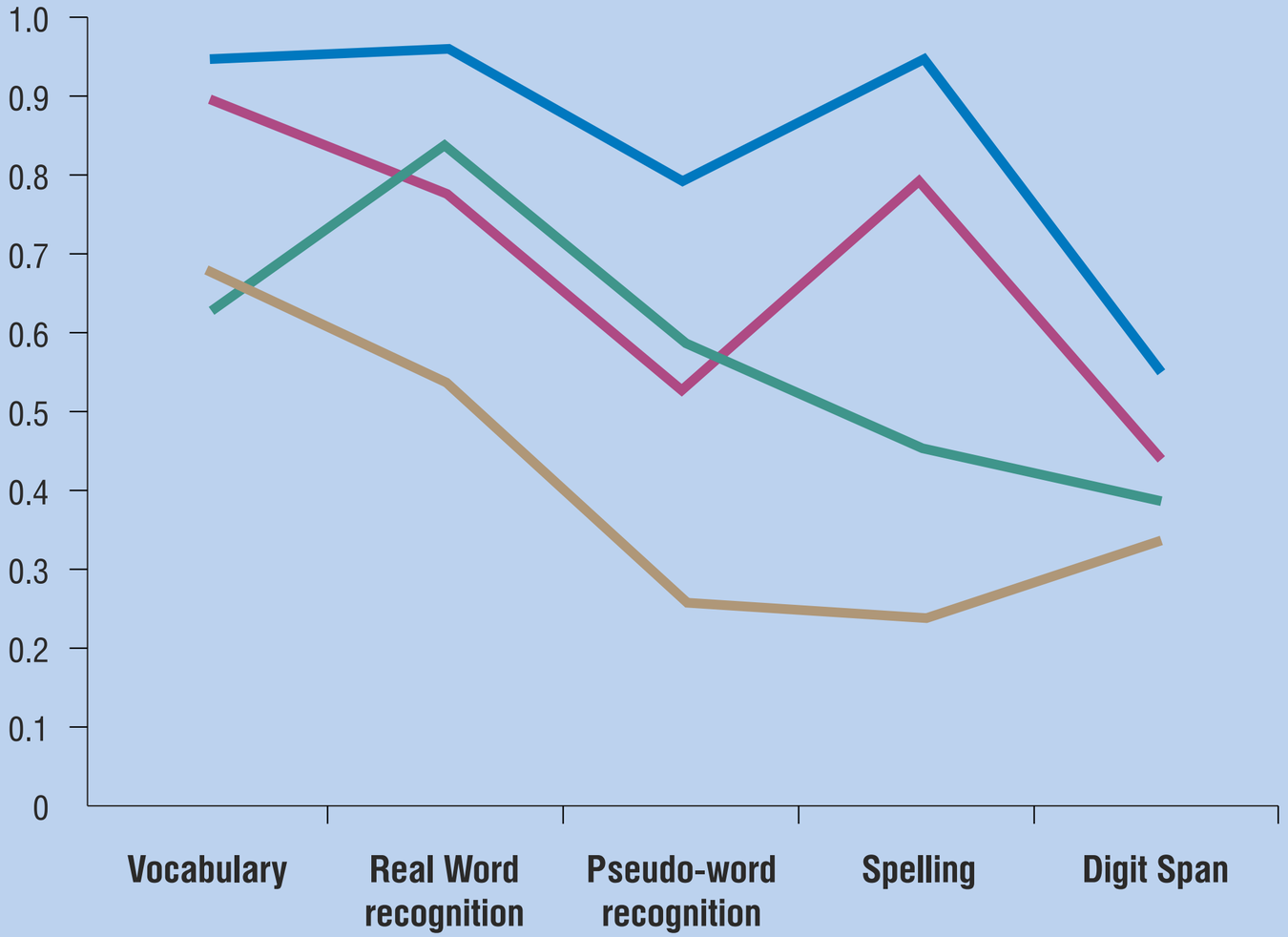
The Early Years Evaluation
that assesses physical, social and
cognitive skills in Grades 1 – 4 in real time

The Bow Valley College web-based
adaptive real time assessment of the reading
mechanics that underlie learning to read

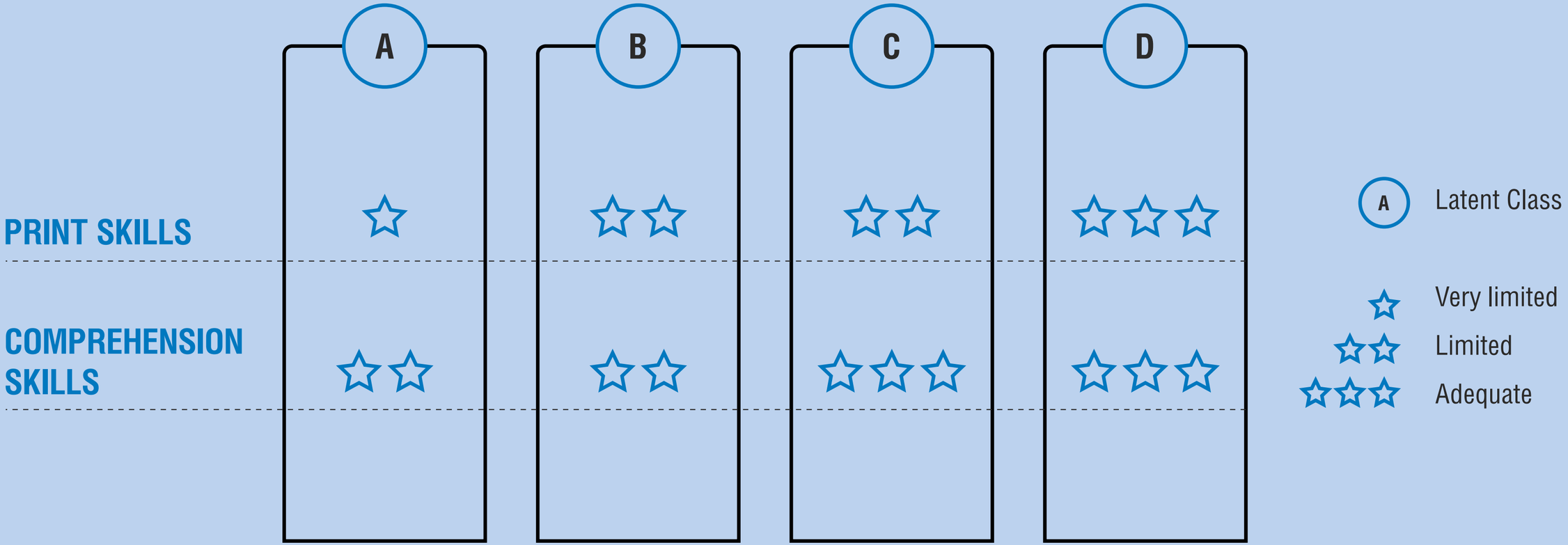
EARLY YEARS EVALUATION
COGNITIVE SCORES BY LETTER NAMING FLUENCY



BOW VALLEY COLLEGE FOUNDATION ASSESSMENT



SUMMARY OF DECODING AND VOCABULARY LEVEL BY LATENT CLASS



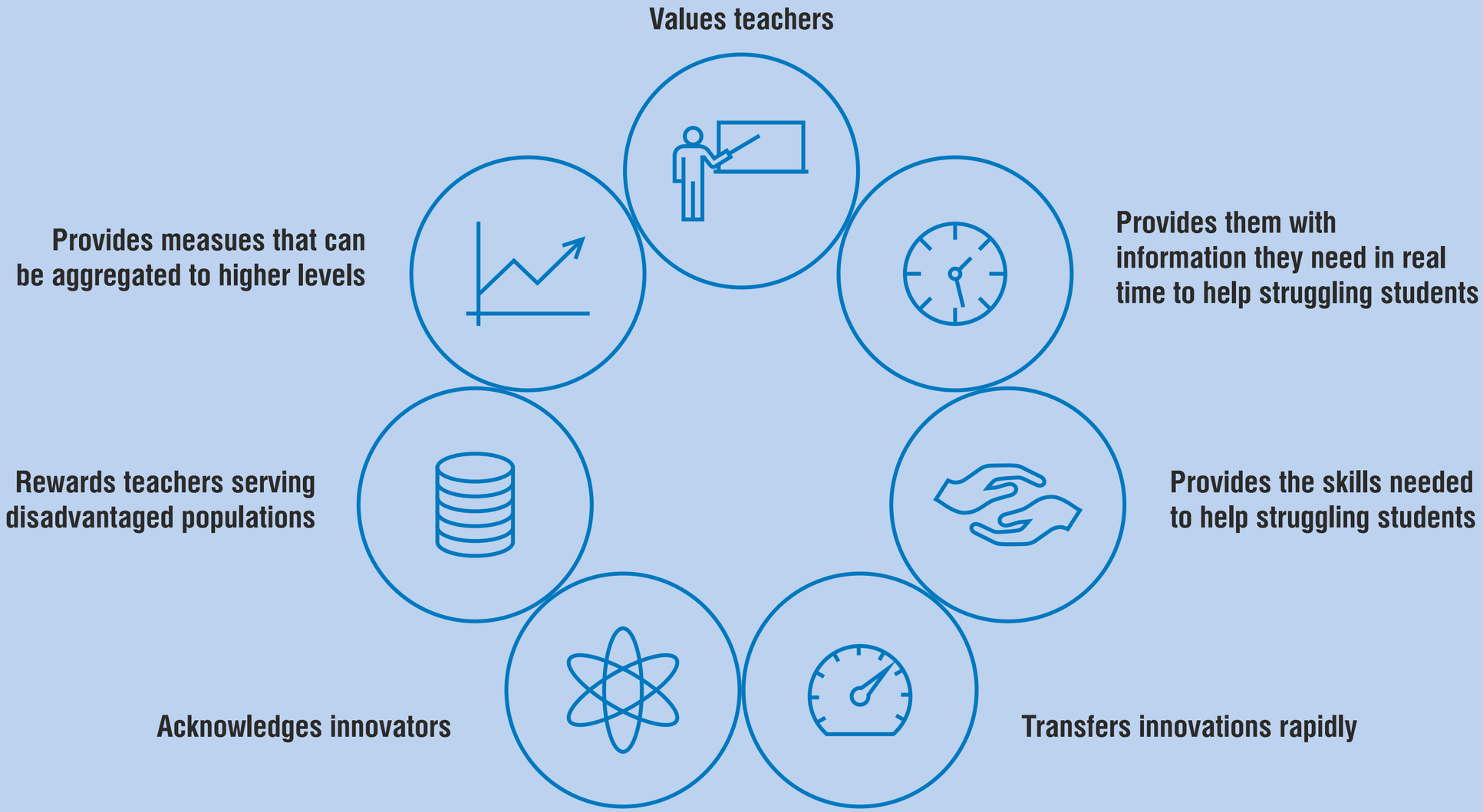
A NEW GENERATION OF ASSESSMENTS IS YIELDING THE LONG AWAITED SCHOOL IMPROVEMENT:

The SkillPlan teacher in-service literacy instruction training that provides teachers with a deep knowledge of how to help struggling students

Professional learning communities that serve to transfer promising practices and awards that acknowledge innovation

Extra resources for schools serving disadvantaged populations

THIS NEW GENERATION OF ASSESSMENTS:



THANK YOU FOR YOUR ATTENTION!

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