Using CogAT® results for Differentiation

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Kaplan Fou

Cognitive Abilities

CogAT®
Cognitive Abilities Test

-
- nd specific
- Predicts future levels
- Scores are valid

Reasoning Abilities

Primary Uses of CogAT® Scores

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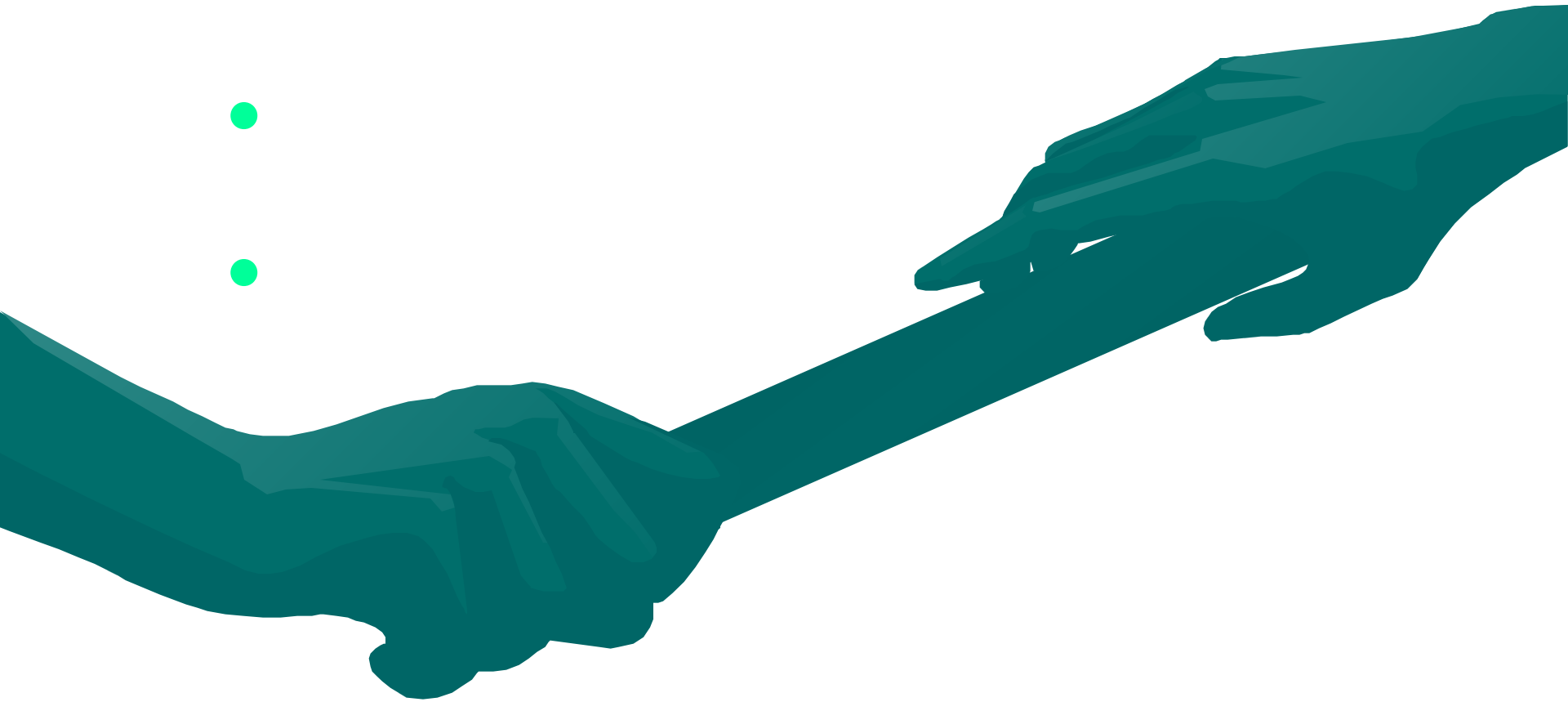
-
- To identify students who
of achievement ar
their observed a

Cognitive Domains



Verbal Reasoning

-
- alogies.
- or success in
- Learn by talking or
  new informati

VERBAL BATTERY

- **Verbal Battery measures:**
  - Verbal inductive and deductive reasoning
  - Flexibility, fluency and adaptability in working with verbal materials and problems
  - Students must have a variety of verbal strategies to be successful.
  - Skills measured affect reading comprehension, critical thinking , writing and all verbal learning tasks.

Quantitative Reasoning

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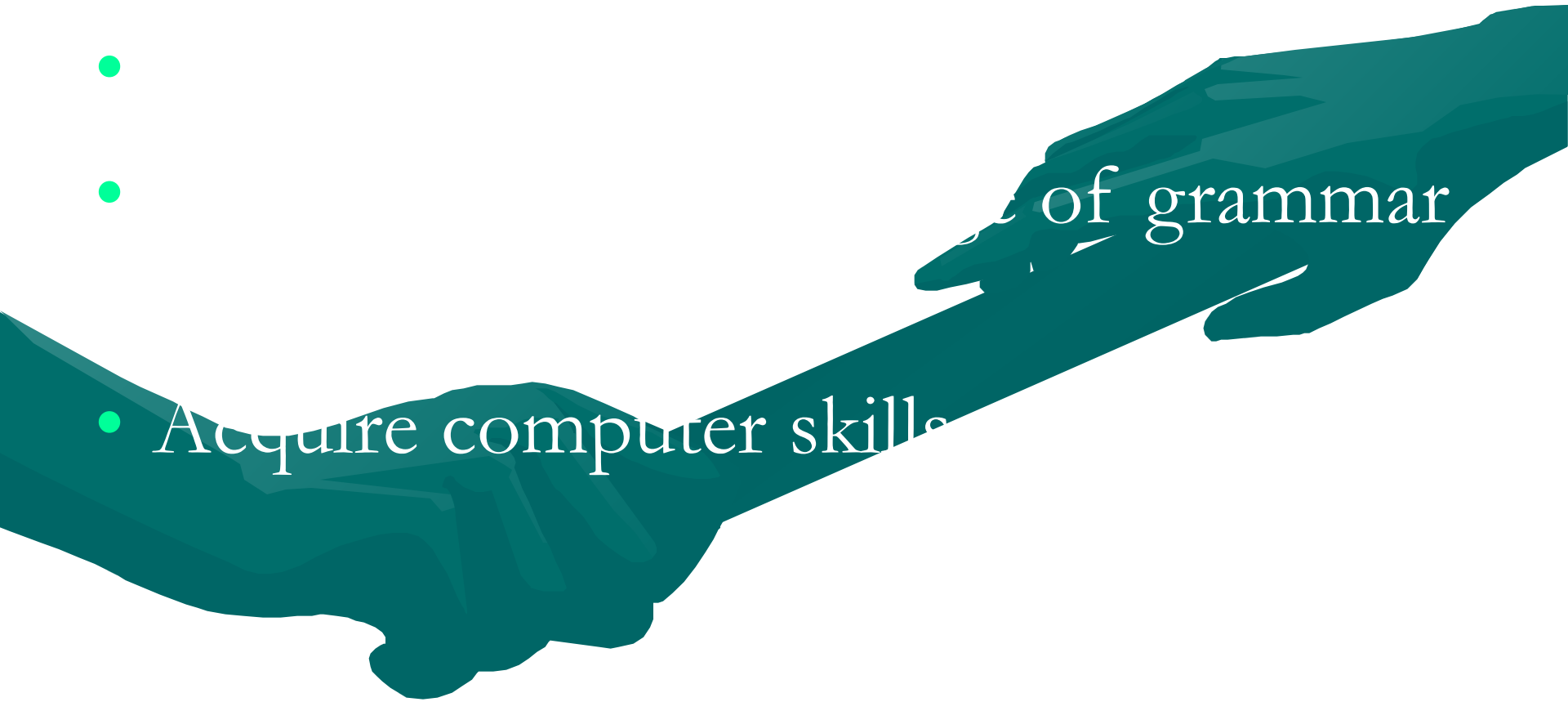
-
-
- Acquire computer skills



QUANTITATIVE BATTERY

- Quantitative Battery measures:
  - Deductive and inductive reasoning skills in working with quantitative symbols and concepts
  - Flexibility and fluency in working with quantitative symbols and concepts
  - Order, structure and give meaning to a set of numerals
  - To be successful, students must have a variety of strategies for working with quantitative materials

Nonverbal Reasoning

-
-
- s, charts,
- vel learn
  creative contributions
- 2nd language lea
  high

NONVERBAL BATTERY

- Nonverbal Battery measures:
  - Use only geometric shapes and figures that have little direct relationship to formal schooling
  - No reading and no outside fund of knowledge required
  - Requires reasoning, but not spatial reasoning (gender biased)
  - To be successful students must have well-developed strategies and flexibility as they work with novel materials

TEST STRUCTURE

- Verbal Battery**65 items**

Test 1: Verbal Classification20 items

Test 2: Sentence Completion20 items

Test 3: Verbal Analogies25 items

- Quantitative Battery**60 items**

Test 4: Quantitative Relations25 items

Test 5: Number Series20 items

Test 6: Equation Building15 items

- Non-verbal Battery**65 items**

Test 7: Figure Classification25 items

Test 8: Figure Analogies25 items

Test 9: Figure Analysis15 items**Total items 190**

CogAT® Label

Student Name	ID Number	Date of Birth	Age	Grade	Level	Form	Profile
Cognitive Abilities Test	0000000	12/99	06-11	1	1	6	9E(V-)
	Test Date 03/07						

Test	No. of Items	No. Att.	Raw Score	USS	Age Scores SAS	Age Scores PR	Age Scores S	Grade PR	Grade S
Verbal	44	44	32	155	102	55	5	64	6
Quantitative	44	44	42	197	128	96	9	98	9
Nonverbal	44	44	43	210	131	97	9	99	9
Composite				187	123	92	8	97	9

- Norm based standardized test
- 50% is average compared to other students of the same age.
- Scores are valid for 24 months.

HOW TO READ THE COGAT LABEL

- + extremely variable responses page 62
  Responses to items or subtests were inconsistent, may have missed many easy items but correctly answered more difficult ones or scored lower on one of the subtests than on another.
- # too few items attempted
- ----------
- Age and Grade Score **We are using age score???? See page 70 of the manual**
- Students who are younger or older than their grade peers Look at date of birth

HOW TO READ THE COGAT LABEL

- A – all scores are at roughly the sAme level
- B- one score is aBove or Below the other two – a relative strength or a relative weakness
- C- Two scores Contrast – a relative strength AND a relative weakness
- E – there are Extreme score differences- at least two scores differ by 24 or more points on the Standard Age Score SAS scale

Stanine

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Stanines 1-3 **Below Average** below grade level

Stanines 4-6 **Average** on grade level

Stanines 7-8 **Above Average** high ability

Stanine 9 **Very High** gifted learner

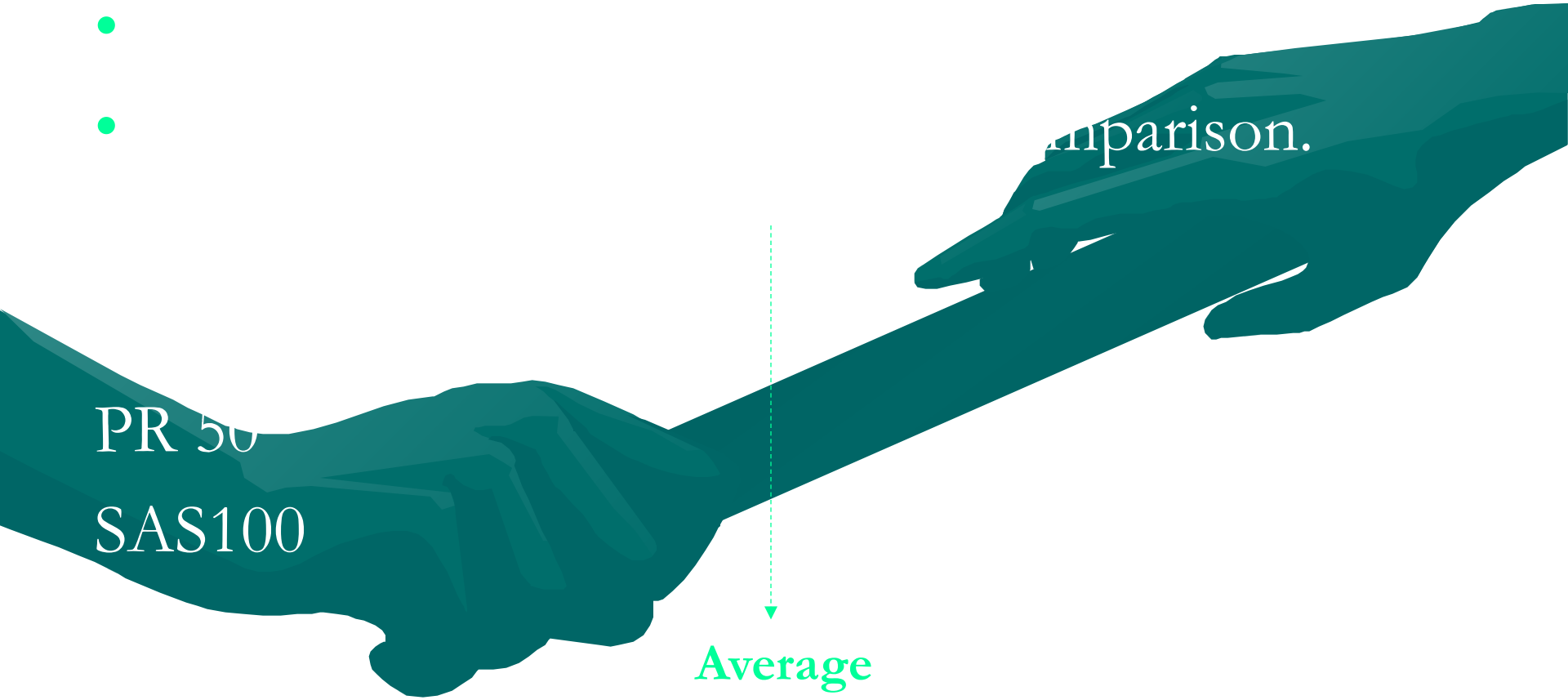
Stanines

-
-
-

mparison.

PR 50

SAS100



Average

HOW TO READ THE SAS

	PR		
Very high 128-150	89-95		96-99
	8		9
Above average 112-127	77-88		
	7		
Average 89-111	24-40	41-59	60-76
	4	5	6
Below average 73-88	5-11	12-23	
	2	3	
Very low 50-72	1-4		
	1		

High CogAT ↔ Low Grades

- necessary

Low CogAT ↔ High Grades

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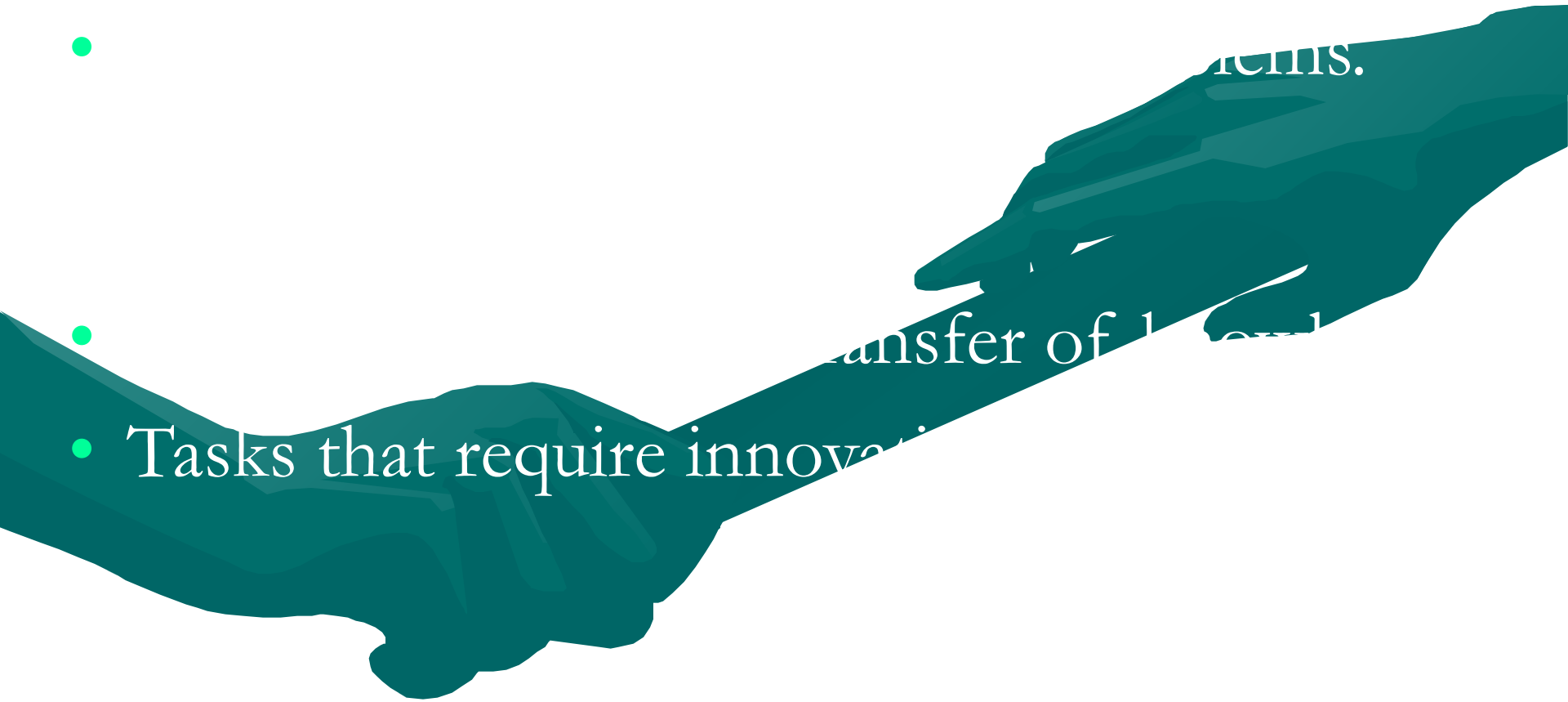
-
-
- Tasks that require innov



Profile Score

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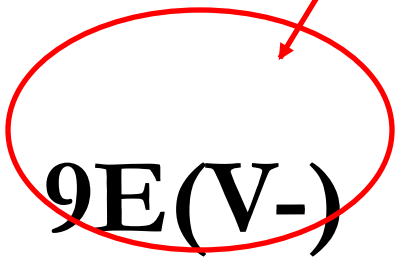


How to read the CogAT label

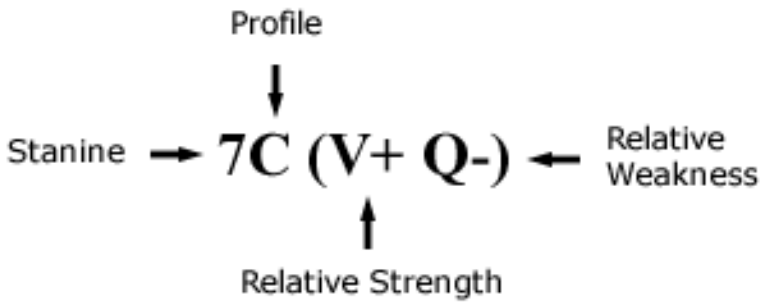
- sAme
- aBove Below
- Contrast elative strength
- E – there are Extreme
  least two scores diff
  tand

Profile Score

-
-
-

scores

the 3 scores.



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Go to Riverside Publishing website for interpretation of the Profile Score.

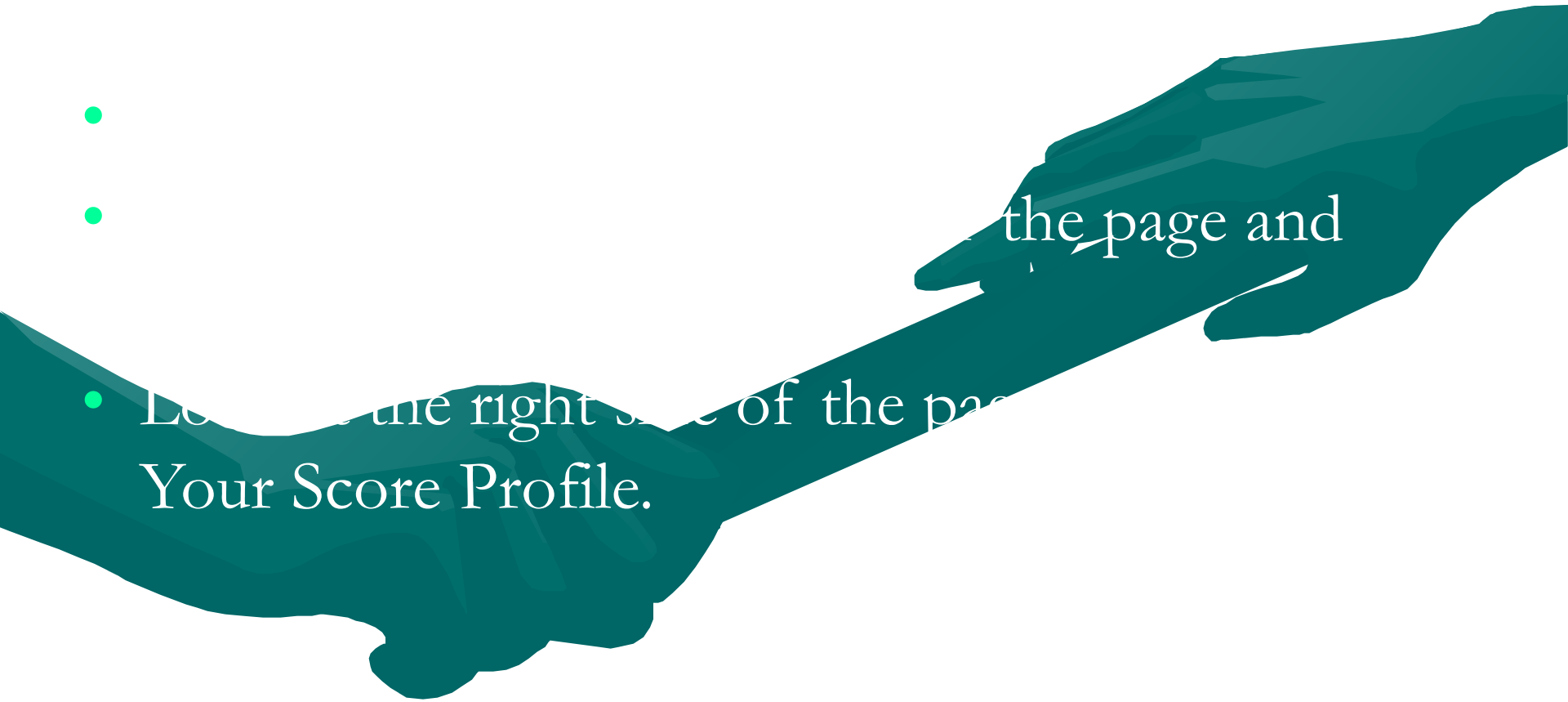
You will also get instructional suggestions for that student

www.riverpub.com/products/group/cogat6/input.jsp

INTERACTIVE PROFILE INTERPRETATION SYSTEM

- www.cogat.com
- Gives suggestions for instructing each student based on their CogAT score profile
- "A Short Guide for Teachers" is also available free and gives information on instructional practice. A copy has been provided for each teacher in your testing materials.

- www.cogat.com
- the page and
- Your Score Profile.



- Encourage Strategies Thinking
- When grouping, aim for div
- For additional informatio

IRM Interactive Results Manager

-
- http://irm30.rpclearing.com
- to review class
- chool results.
- Along with the student profile
  provide excellent sugge

CogAT Cognitive Abilities Test

Raw Data

CogAT

- **Verbal 70 %**
- **Quantitative 55%**
- **Nonverbal 70%**
- **What does this data tell us about this student's aptitude?**

CogAT Cognitive Abilities Test

CogAT

- **Verbal 70 %**
- **Quantitative 55%**
- **Nonverbal 70%**
- **Now what do we know?**

Grades

- **Language Arts 97 for the first 3 quarters**
- **Math 99 for the first three quarters.**

What other data is needed?

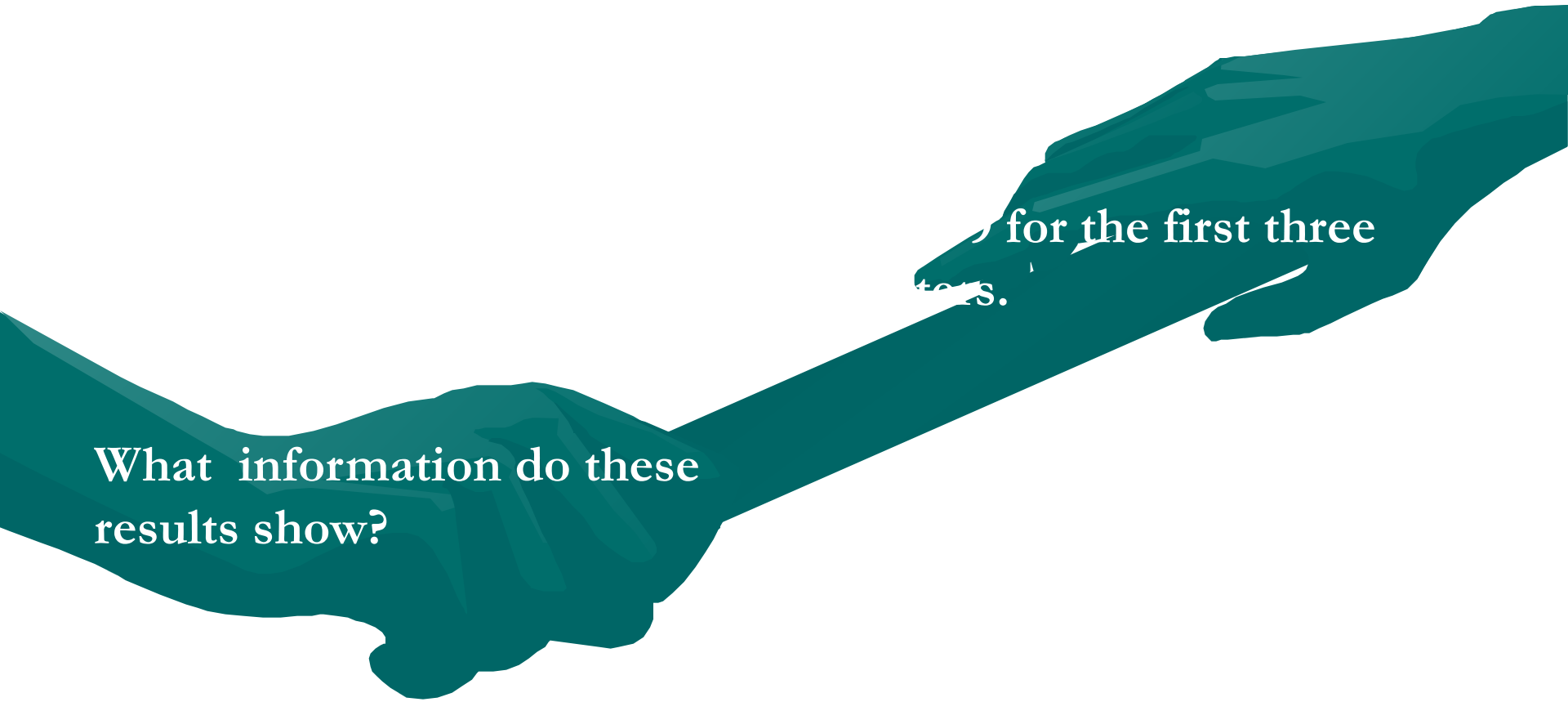
Renzulli Checklist

- **Now what do we know?**
- **Should the classroom teacher complete a Renzulli Checklist?**

EOG

- **ELA – 99 %**
- **Math – 91 %**

CogAT Cognitive Abilities Test



CogAT Cognitive Abilities Test

CogAT

- **Verbal 70 %**
- **Quantitative 55%**
- **Nonverbal 70%**
- **Now what do we know?**

Raw Data

- **65 question**
- **Answered 61**
- **Number correct 54**

- **60 questions**
- **Answered 41**
- **Number correct 41**

- **65 questions**
- **Answered 54**
- **Number correct 53**

MAIN USES OF COGAT

- Guide efforts to adapt instruction to student needs
- Provide alternative measures to cognitive development
- Identify students whose predicted levels of achievement are very different from observed levels of achievement

RECOMMENDATIONS FOR FREQUENCY OF TESTING

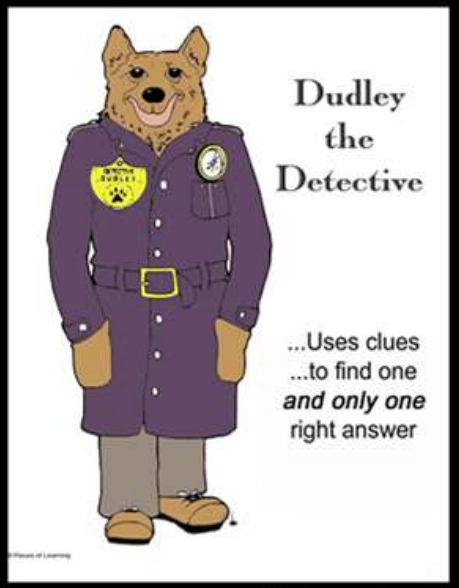
- CogAT scores should be viewed as a description of the student's cognitive ability *at the time the test was taken.*
- Little change in cognitive ability occurs in one year, but real changes can be observed over a 2 to 3 year period.
- Description of student's cognitive ability should be updated every 2 to 3 years.
- This explains why we test in grades 3 and 5.

PREPARING STUDENTS IN GRADES K-3

- The Primary Education Thinking Skills program introduces students to different ways of thinking.

- Each character models one of the following:
- Divergent thinking
- Convergent thinking
- Visual/Spatial thinking
- Evaluative thinking

- Activities provide students with opportunities to learn how to think in different ways and then the teachers uses the thinking skills with content lessons.


Dudley
the
Detective
...Uses clues
...to find one
and only one
right answer

Sybil
the
Scientist
...Studies
the parts
of things

Max
the
Magician
...Looks for
patterns
...To find
one solution
that works

Yolanda
the
Yarnspinner
.....Uses her
imagination
....to weave
wonderful
stories

Isabel
the
Inventor
...Brainstorms
...to find
lots and lots
of answers

Jordan
the
Judge
... Uses
considerations
...To find
the best
answer

COGAT PROFILE

- Information includes:
- Profile Explanation
- Characteristics of Student with These Profiles
- Instructional Suggestions
- Build on Strengths
- Focus on Working Memory
- Scaffold Wisely
- Encourage Strategies Thinking
- When grouping, aim for diversity
- For additional information