BEST PRACTICES TO GETTING VALUE FROM PSYCHOMETRIC TOOLS: RELIABLE TESTS AND MINDFUL USERS

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RELEVANCE OF PSYCHOLOGICAL TESTING

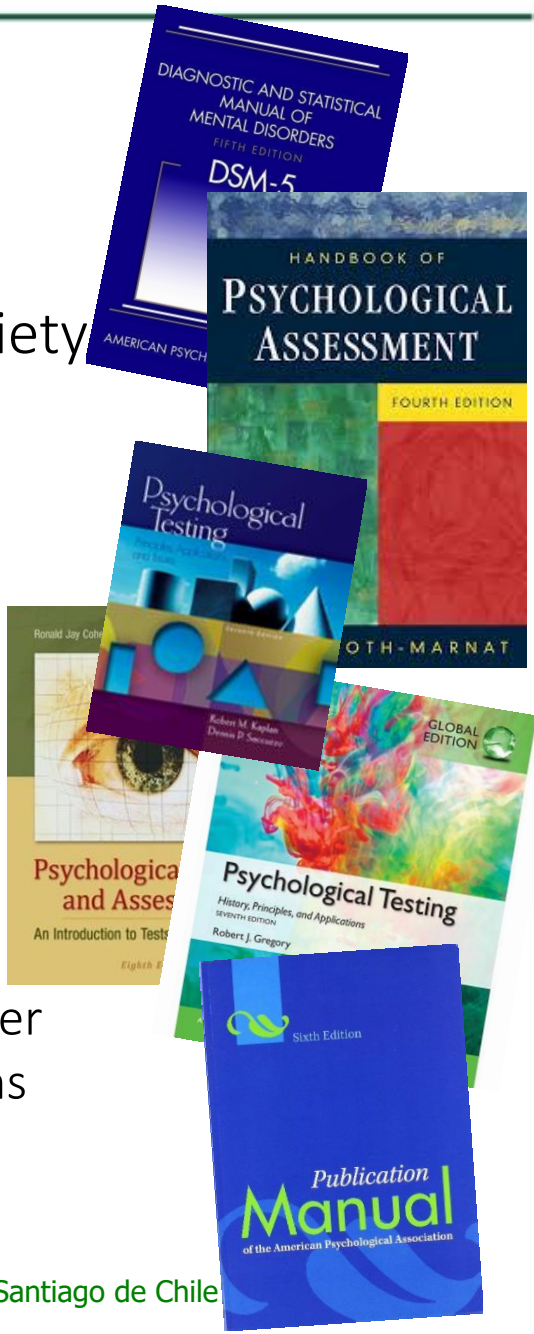
- Psychological testing and assessment involve and **significantly affect** individuals, institutions and society as a whole

- Testing is used to inform a variety of **decisions** in societies around the world

- The use of psychological testing is esponentially growing:

  - **Eight of the top 10 U.S. private employers** now administer pre-hire tests in their job applications for some positions

  - **Thousands** of questionnaires and tests available



CHOOSE YOUR TEST: AN HARD CHOICE

«I am a psychologist…not an expert in testing….»

«Which is the best test for my purpose?»

«Is the test I chose reliable?
Can I trust its results?»

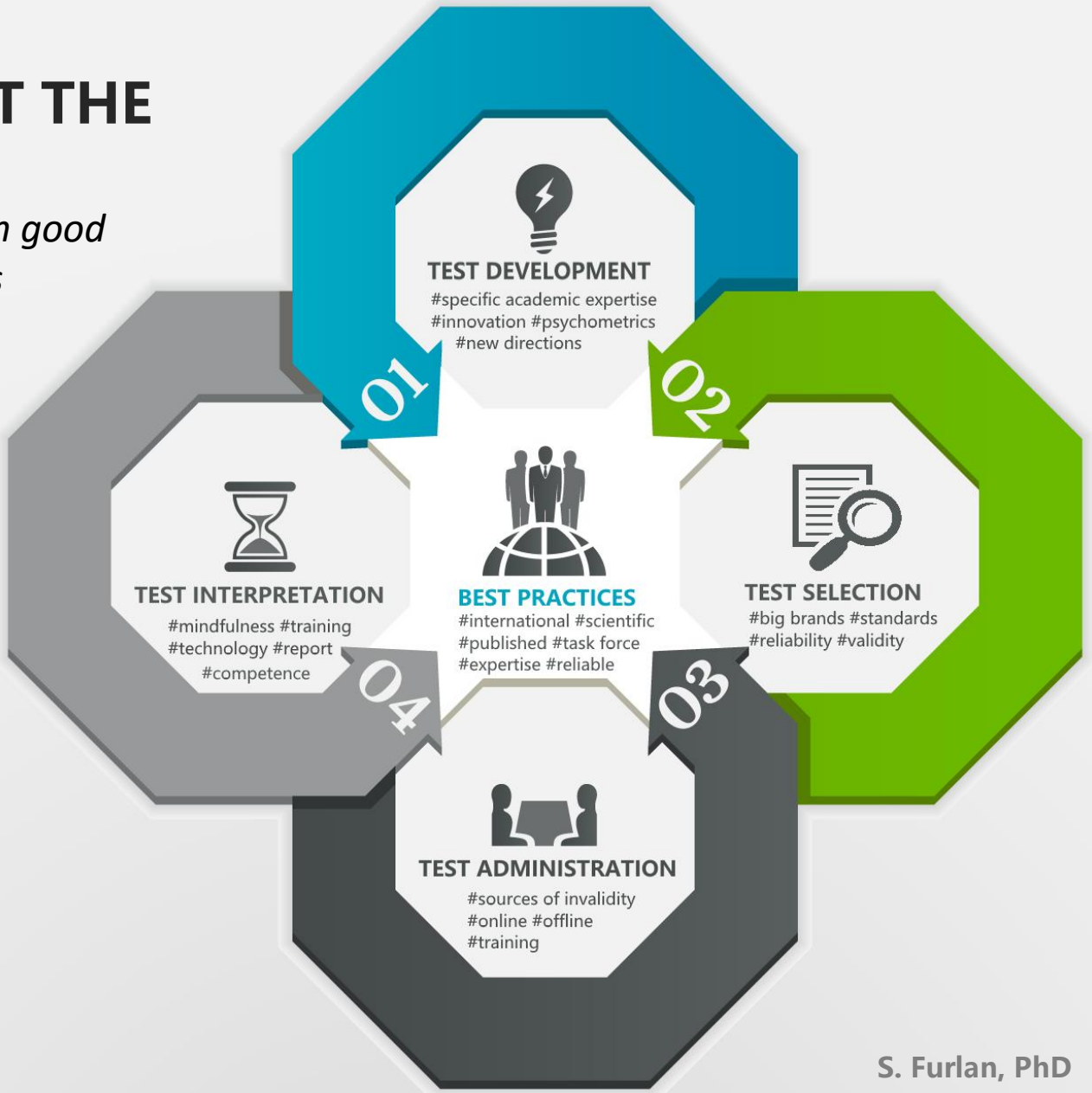
«Online or not online?»

«So many companies producing tests…Which ones are reliable?»

«Norms…tables…so many numbers…how to interprete results?»

DO NOT FORGET THE PROCESS

Reliable tests are based on good practices in different steps



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PICK THE BIG BRANDS

Scientific credibility, reputation, contact with professionals, and technical support

- Unlike other products where the advantages of buying a brand can be subjective, established brands in the psychometrics market can indicate quality:
  - Relevance of quality certifications
- Tradition, expertise, and products internationally and scientifically recognized
- Connection with universities and national/international professional organizations that represent psychologists in their own countries:
  - Shared policies (i.e., qualification, ethics, security…)
  - Adherence to **gold standards scientifically-based**

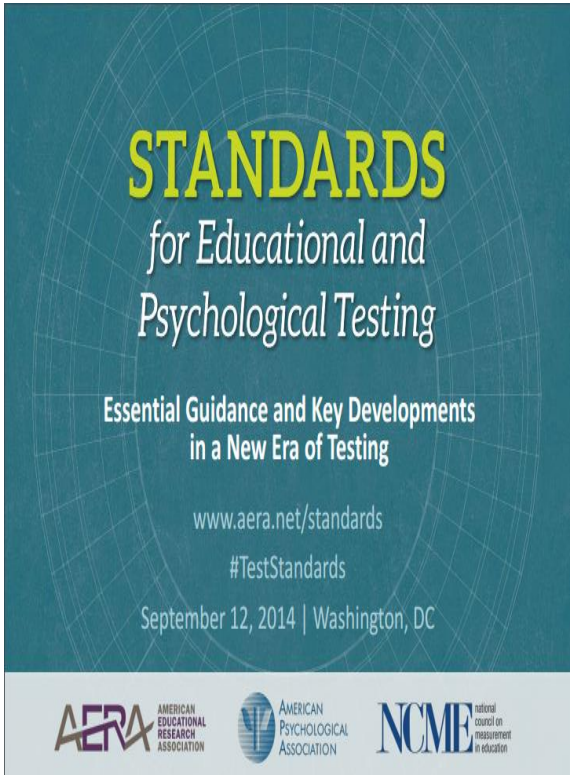
BEST PRACTICES IN TEST SELECTION

- International societies and organizations produce and promote standards in psychological testing according to shared scientific criteria

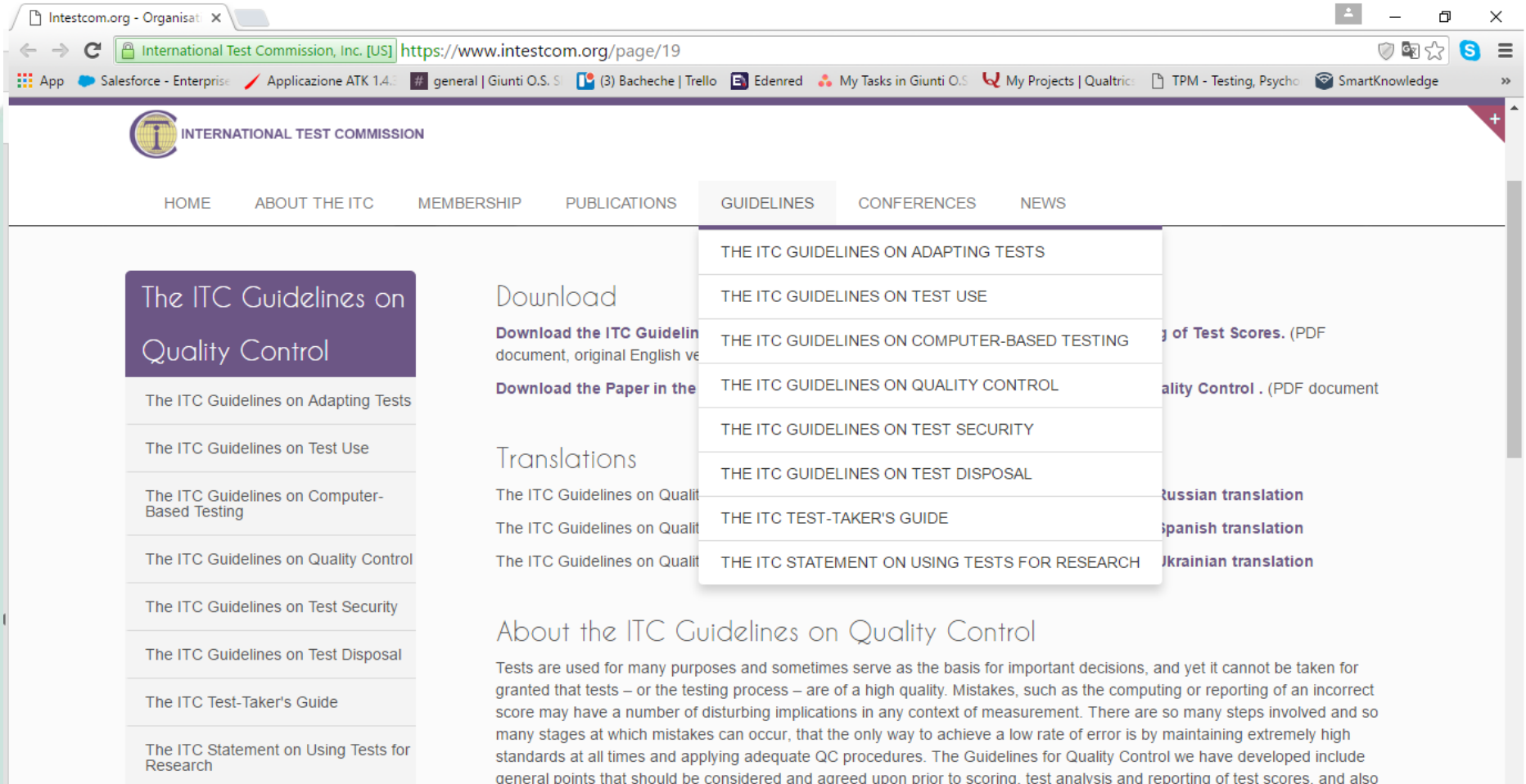
American Psychological Association

AERA 100 American Educational Research Association 1916-2016

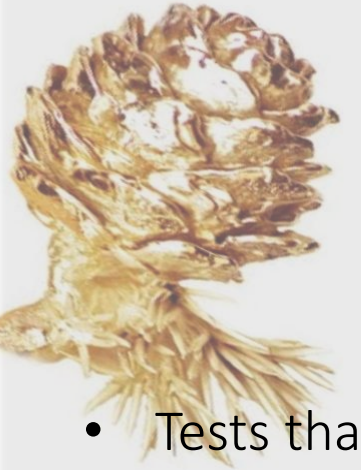
NCME national council on measurement in education



- ITC Guidelines on Adapting Test: translated in Ukrainian language

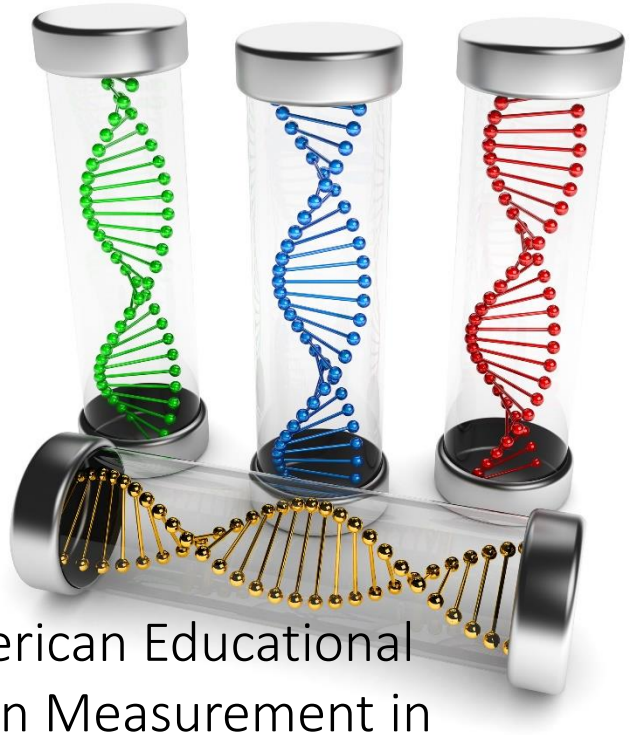


Apparent Perfection....



- Tests that measure 'too much'
- Instruments/relative reports grafically amazing but without a solid theoretical background scientifically recognized
- Tests without strong evidence for **reliability** and **validity**
    - A study published in Science by Brian Nosek (2015) replicates 100 research findings in psychology: only 39 of the published studies could be reproduced

CHECK FOR RELIABILITY



- Reliability is the extent to which a test is repeatable and yields consistent scores
- If test is not reliable, than one cannot demonstrate that it has any meaning
- The American Psychological Association, American Educational Research Association, and National Council on Measurement in Education (2014) suggest **20 standards** for reliability
    - Different psychometric procedures (test-retest method, standard errors of measurement…)
    - Classical Test Theory (CTT) vs. Item Response Theory (IRT)

BEST PRACTICES IN TEST SELECTION

How reliable is reliable? The answer depends on the use of the test

Conventional criteria:

.90 = high reliability
.80 = moderate reliability
.70 = low reliability

- High reliability is required when:
  - Tests are used to make important decisions
  - Individuals are sorted into many different categories based upon relatively small individual differences (e.g., intelligence)

CHECK FOR VALIDITY

- Validity is defined as the answer to the question: "Does the test measure what it is supposed to measure?"

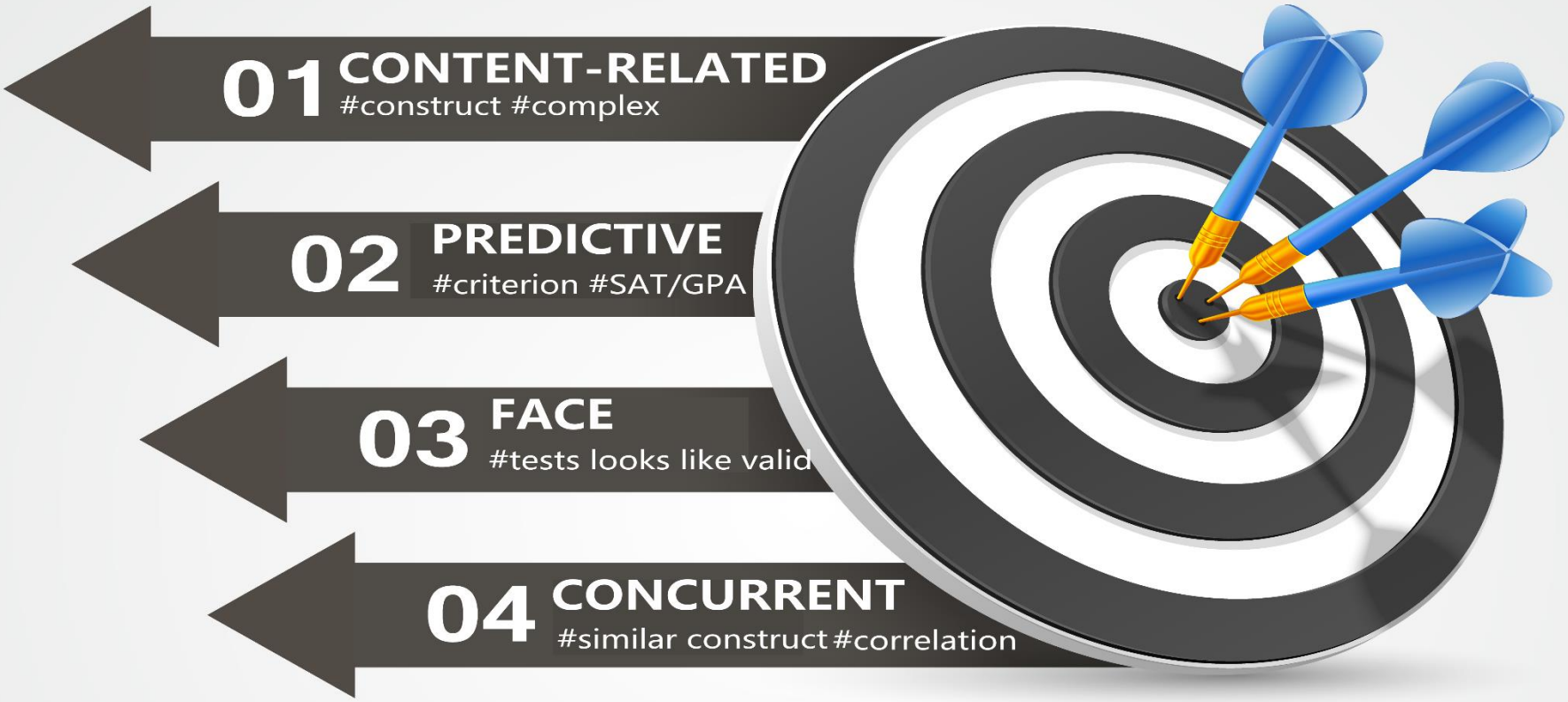
- Validation is an open-ended process – Validity evidence should be collected prior to initial test use and further data analyzed as the test continues in operational use

- What makes a test valid?

  - A test is not valid in itself, but specific interpretations of the test scores are valid for particular uses

  - Guidelines approved by major professional groups: many kinds of validity, but **three are particularly important**

BEST PRACTICES IN TEST SELECTION



KINDS OF VALIDITY

Validity can be defined as the agreement between a test score and the quality it is believed to measure

PAY ATTENTION TO SOURCES OF INVALIDITY

Many factors can affect test scores

- Motivation
- Acquiescence & social desirability
- Environment condition
- Reinforcement during the test administration
- Personal characteristics of the tester (i.e., gender, age…)
- Language of test taker
- Level of anxiety in test taker
- Expectancy effects
- Deception
- Cultural bias
- **Training** of test administrators

BEST PRACTICES IN TEST ADMINISTRATION

GET TRAINED

Customized and certified training solutions

- Face-to-face **training events** organized in **Italy** during **2015**

40 training events all over the country

4k professionals trained

#Psychologists #neuropsychologists #educators #speech therapists #teachers

Topics

#Dyslexia #Autism #Assessment #Psychodiagnostic #Special needs #Forensic #Clinical psychology #Develomental psychology #Intervention #ADHD #Personality #Intelligence

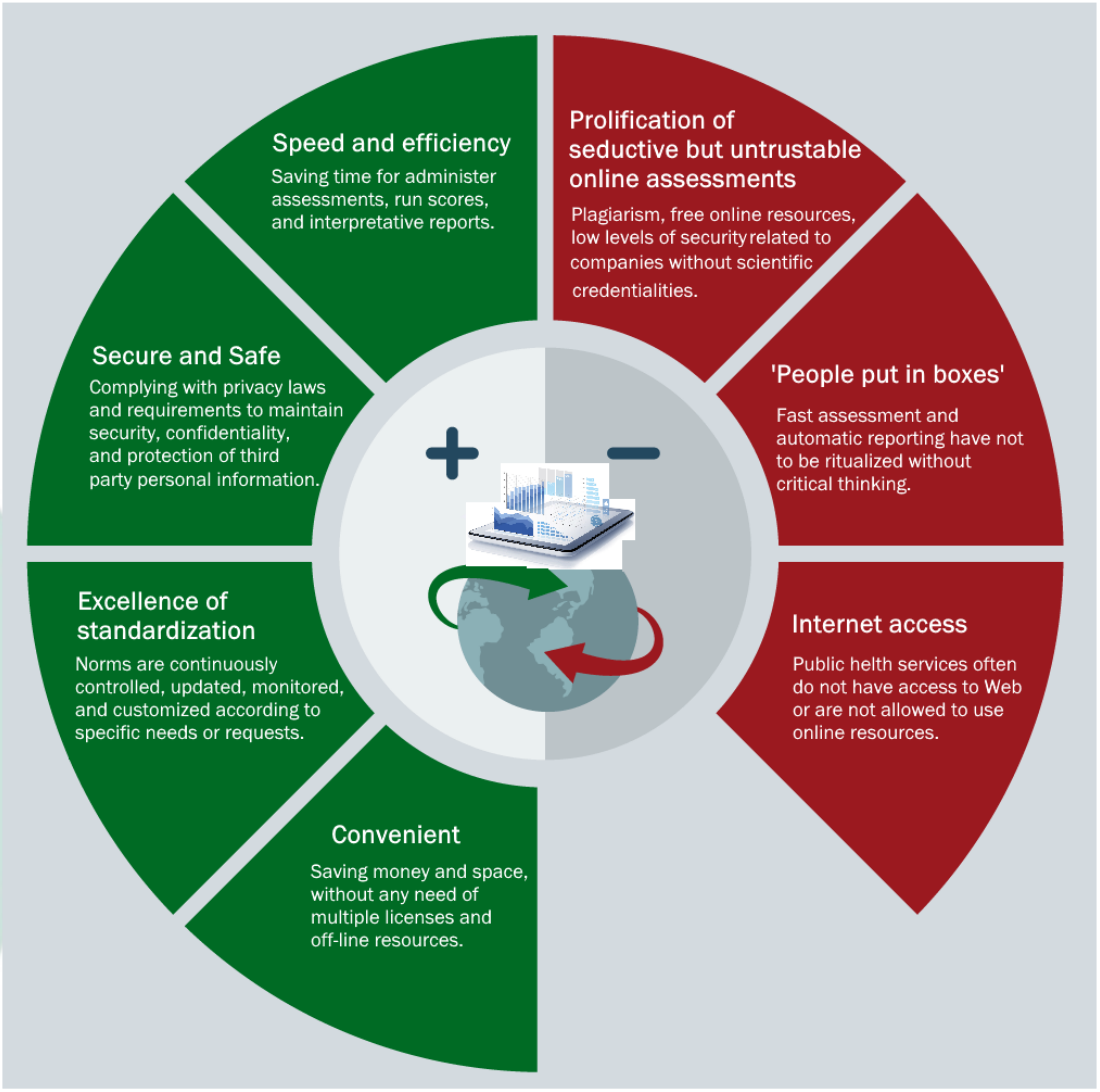
Full-day events (1-to-4 days)

Bucharest – Budapest – Florence – Guangzhou – Istanbul – Kiev – Milan – Moscow – Paris – Rome – Santiago de Chile – Shanghai – Sofia

RELY ON TRUSTED ONLINE ASSESSMENT PLATFORMS

PROS & CONS

Ploriferation of technology-based assessment: Online administration and reporting



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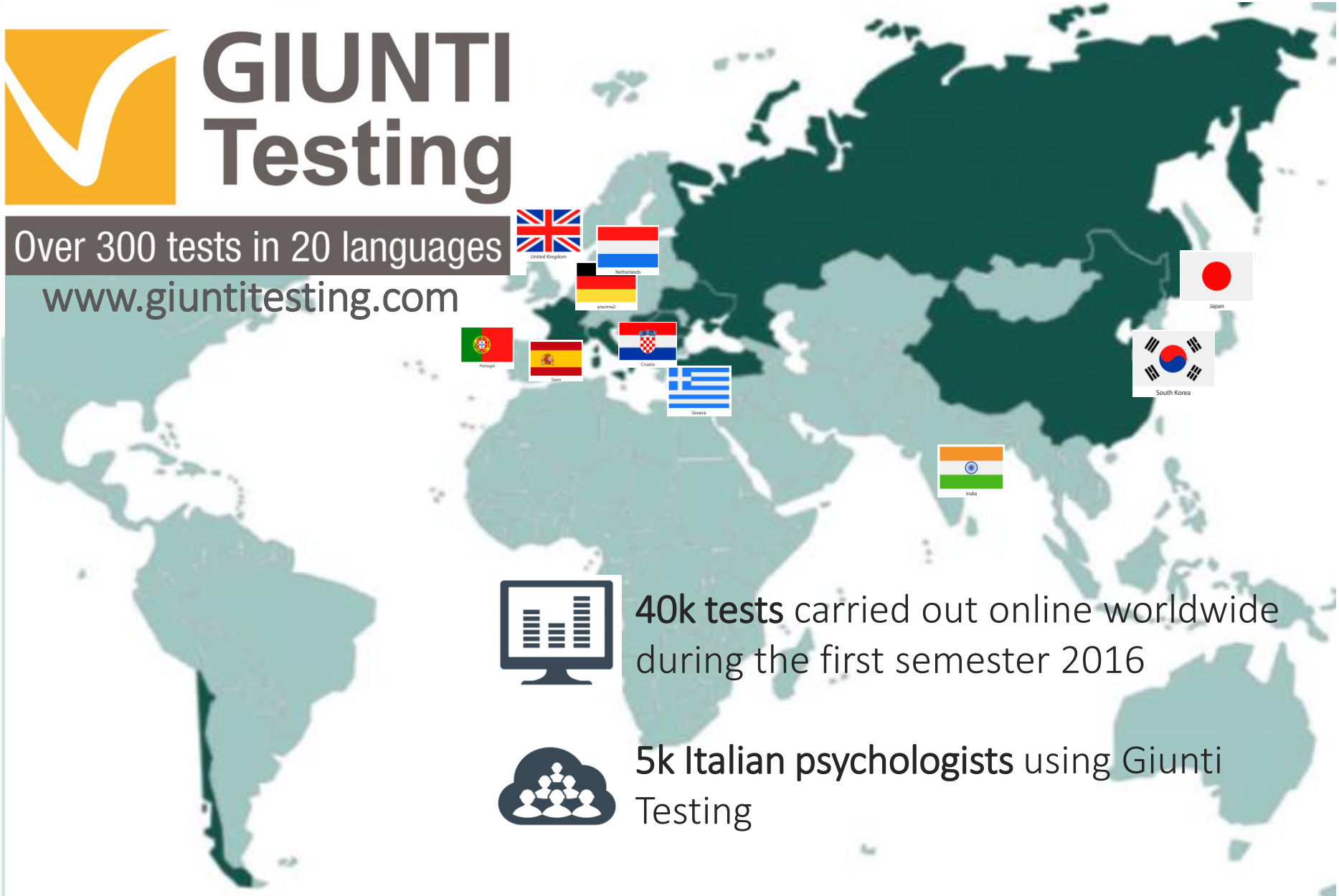
GIUNTI Testing

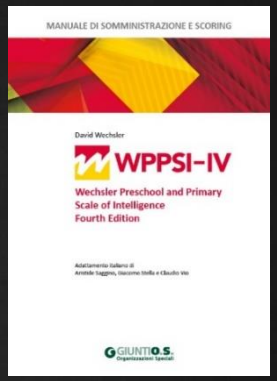
Over 300 tests in 20 languages

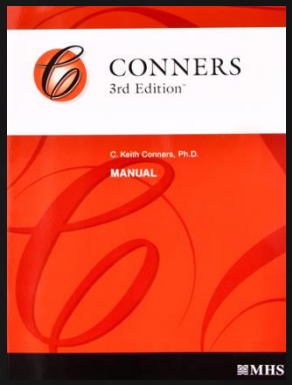
www.giuntitesting.com

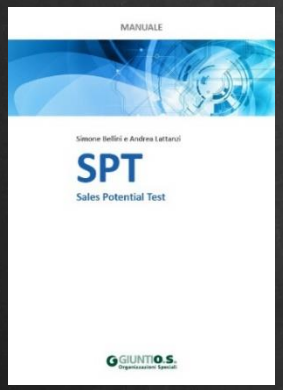


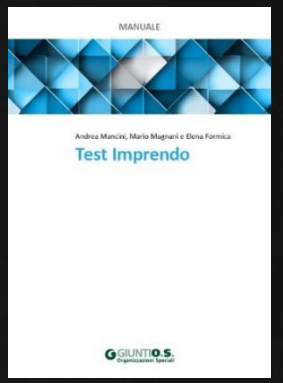
40k tests carried out online worldwide during the first semester 2016

5k Italian psychologists using Giunti Testing









Coming Soon

#More than 30 products in preparation

#More than 40 products under evaluation process during 2016

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