



# Combining Psychometric Tests and Assessment Centers

Svetlana Simonenko  
10.12.2017



# Market trends in assessment



Quick

Distant



HiTech



Cheap

Accurate



# How to use psychometric results in AC

---

1. Integrate into AC ratings
2. Integrate into AC ratings just in questionable cases
3. Use just as an additional information
4. Use for identifying an individual potential for development
5. Somehow else...

# Our researches

---

- Personality questionnaire & AC|DC – 2007
- Ability tests results & AC|DC – 2010
- Dimension Ratings & AC|DC – 2012
  - with George C. Thornton III, Alyssa Mitchell Gibbons, Anna Kravtsova
- Ability tests results & AC|DC for top & middle managers – 2015
- Personality scales & AC|DC rating – 2016-2017
- Personality composites & AC|DC rating - 2017

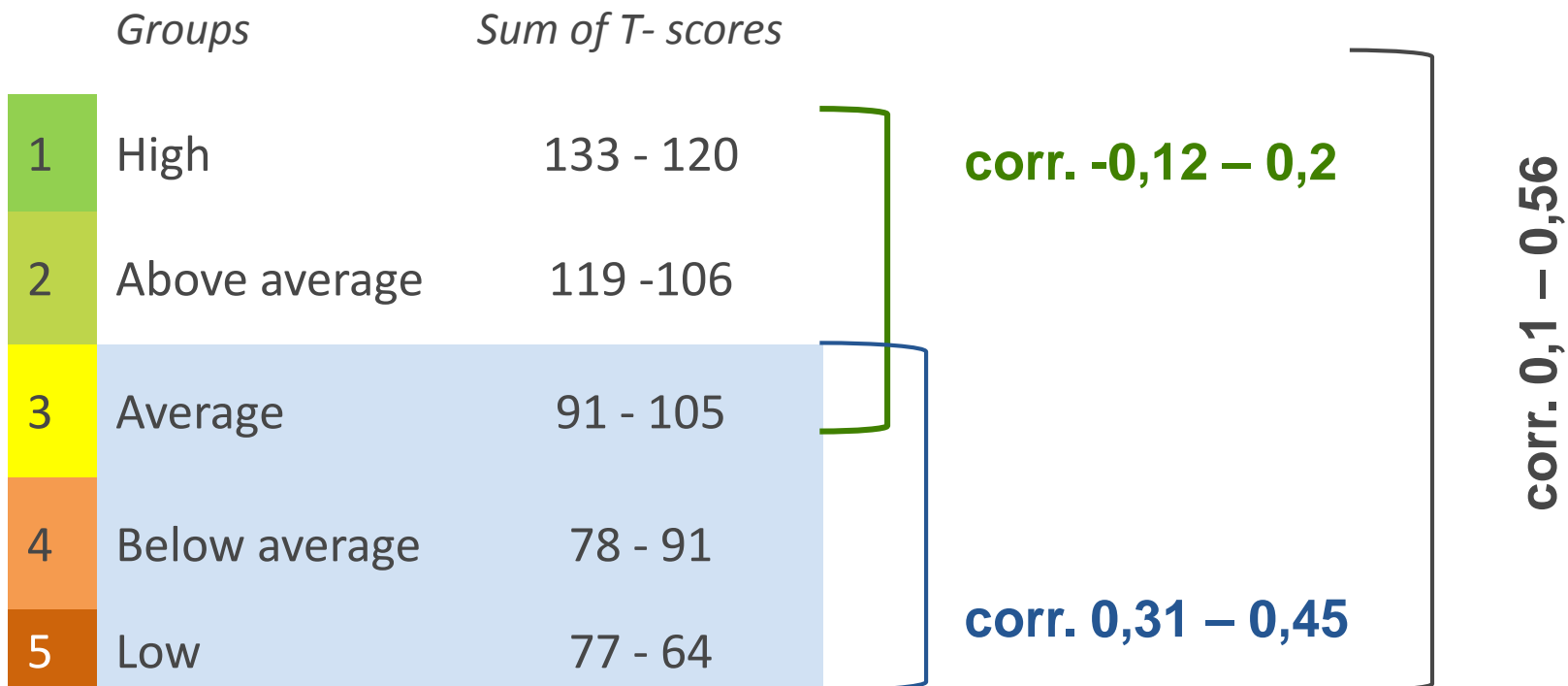
# Summary of the past researches



# Cognitive ability tests results & AC

- Low-level intellectual abilities adversely affect the effectiveness of a manager's behavior.
- High-level of intellectual abilities does not result in an increase in effectiveness.

Top& middle management group N over 500  
2008-2015



# Personality questionnaire (15FQ+) & AC

Competency	Personality characteristics	
Leadership	Accommodating – <b>Dominant</b> <b>Sober Serious</b> – Enthusiastic <b>Trusting</b> – Suspicious <b>Concrete</b> – Abstract	Conventional – <b>Radical</b> Group-Orientated - <b>Self-Sufficient</b> Composed – <b>Tense-Driven</b>
Thoroughness of Execution	Low – <b>High Intellectance</b> Accommodating – <b>Dominant</b> <b>Sober Serious</b> – Enthusiastic	Expedient – <b>Conscientious</b> Retiring – <b>Socially Bold</b>
Strategic Vision	Low – <b>High Intellectance</b> <b>Expedient</b> – Conscientious <b>Hard-headed</b> – Tender-minded	<b>Trusting</b> – Suspicious Concrete – <b>Abstract</b> Conventional – <b>Radical</b>
People Development & Team Building	Distant Aloof – <b>Empathic</b> Low – <b>High Intellectance</b> <b>Trusting</b> – Suspicious	Direct – <b>Restrained</b> Self-Assured - <b>Apprehensive</b>
Openness to Changes	Low – <b>High Intellectance</b> <b>Expedient</b> – Conscientious <b>Hard-headed</b> – Tender-minded	Direct – <b>Restrained</b> Conventional – <b>Radical</b>
Corporate Spirit	Distant Aloof – <b>Empathic</b> <b>Group-Orientated</b> - Self-Sufficient	Informal – <b>Self-Disciplined</b>

The **bold** text indicates the predicted direction of the relationship.

# Competency & personality composites

#		AC Competency Ratings					
Personality Composites for:		1	2	3	4	5	6
Personality Composites	1 Leadership	<b>0,31**</b>	0,26**	0,26	0,06	0,17	-0,15
	2 Thoroughness of Execution	0,15	<b>0,30**</b>	0,19*	0,01	0,10	0,02
	3 Strategic Vision	0,21*	0,22*	<b>0,40**</b>	0,11	0,33**	-0,07
	4 People Development & Team Building	0,07	0,21*	0,23*	<b>0,31**</b>	0,17	0,16
	5 Openness to Changes	0,23*	0,22*	0,35**	0,12	<b>0,38**</b>	-0,05
	6 Corporate Spirit	-0,18	0,00	-0,14	0,13	0,02	<b>0,42**</b>

The **bold type** indicates predicted convergent validity coefficients.

\*- correlation meets statistical significance criteria at  $\alpha = .05$ .

\*\* - correlation meets statistical significance criteria at  $\alpha = .01$ .

*N112 managers*



# The next steps

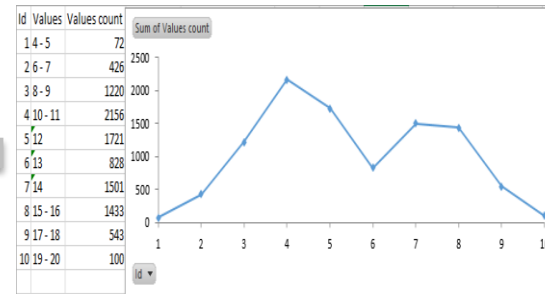
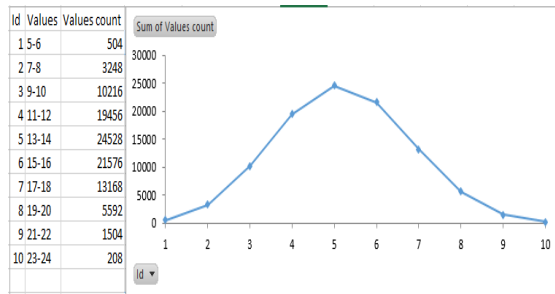


# Competency based online psychometric assessment – how it works

Company competency framework analysis

Setting DEEP questionnaire scales using mathematical algorithm

Leadership	4-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-25
3 Analysis of motives	1	1	1	2	3	4	5	6	7	7
22 Self sufficiency	3	3	5	6	6	4	3	2	1	1
11 Ostentation	1	1	2	3	3	3	4	4	5	6
27 Commitment	1	1	2	3	3	3	4	4	5	6








Testing of statistical parameters

Validation using actual performance data

Competency based psychometric personnel assessment



# Assessment matrix (Case 1)

Business case Competencies	Group 	Presentation 	Role play with subordinate 	Role play with client 	Questionnaire DEEP 
Decision making	✓	✓✓	✓		✓
Leadership	✓✓	✓	✓✓	✓	✓
Relationship Building	✓✓	✓✓	✓✓	✓✓	✓
Customer orientation	✓	✓	✓✓	✓✓	✓

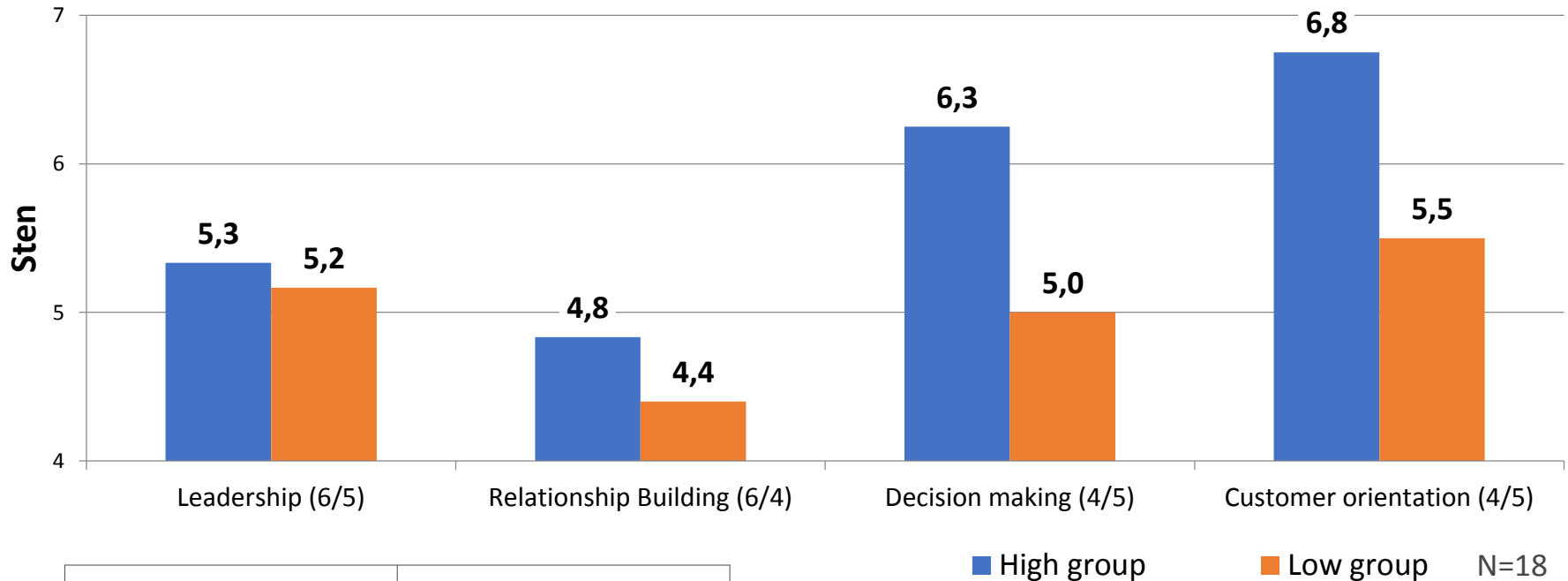
AC rating scale is from 0 to 2 (step =0,01)

Questionnaire (DEEP) scores is from 1 to 10 stens.

Group	AC scores
High results	1,2-2
Average results	0,9-1,19
Low results	0-0,89

# Personality composites & AC

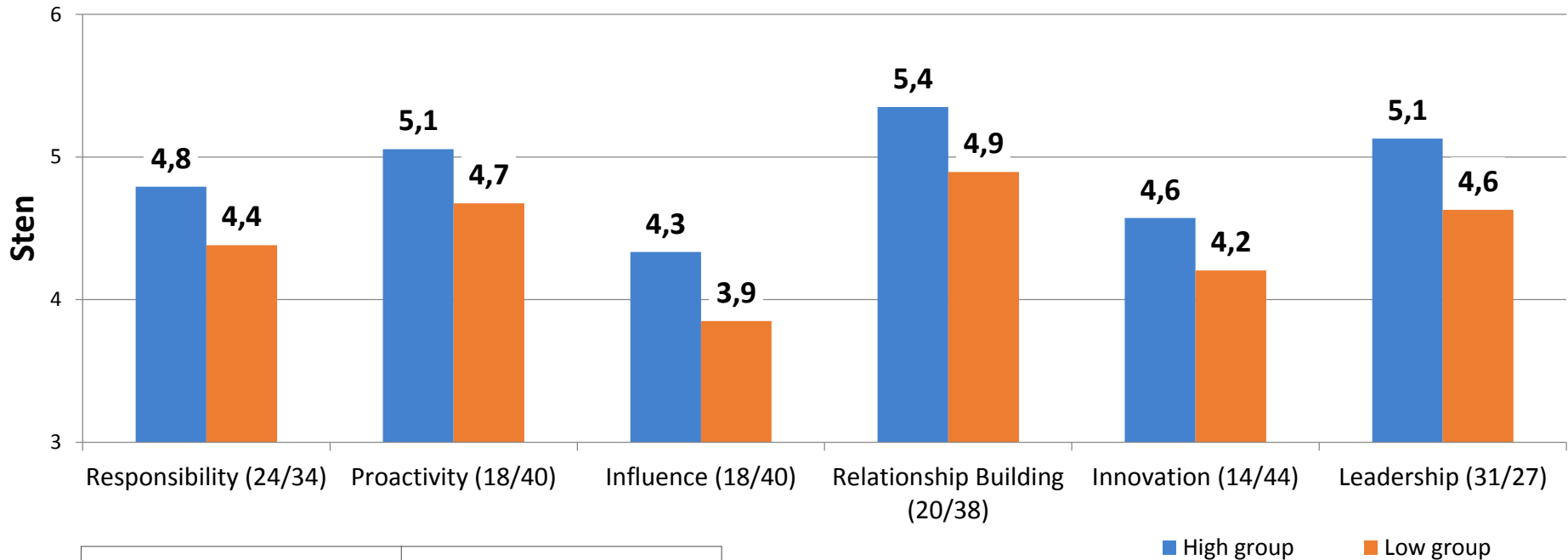
Comparison of average results of High and Low AC's groups



Group	AC scores
High results	1,2-2
Average results	0,9-1,19
Low results	0-0,89

# Personality composites & AC (Case 2)

Comparison of average results of High and Low AC's groups



Group	AC scores
High results	2-3
Low results	0-1

AC rating scale – from 0 to 3

Questionnaire scales (DEEP) - from 1 to 10 stens

N=58

# Major conclusions

- **The link between psychometric results and AC|DC scores is variable from one organization to another.** It could be a matter of:
  - Competency model
  - Skills of participants (corporate training programs)
  - Purpose of assessment (HiPo selection, recruitment, development, etc)
  - Quality of tools (exercises, tests etc.)
  - Assessors skills and experience
  - Anything else?
- **Assessment methodology should rely on proven facts.**  
Proven facts = repeatable results in different researches
- **Psychometric tools and AC assess personality from different sides.** It isn't correct to substitute one method with another.
- **The way of combining psychometric assessment and AC should depends on purpose of assessment.**



Questions are welcome

[www.detech-group.com](http://www.detech-group.com)

