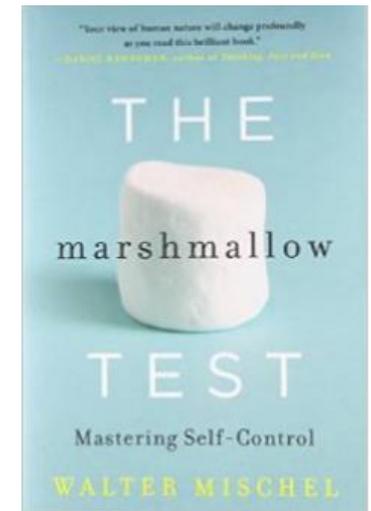
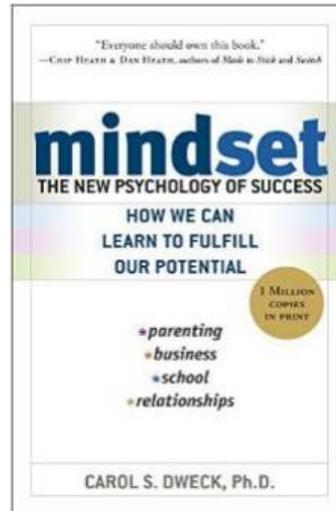
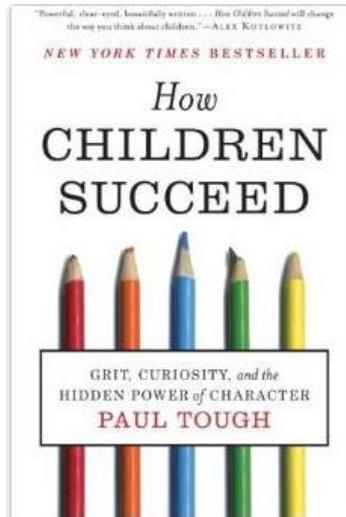
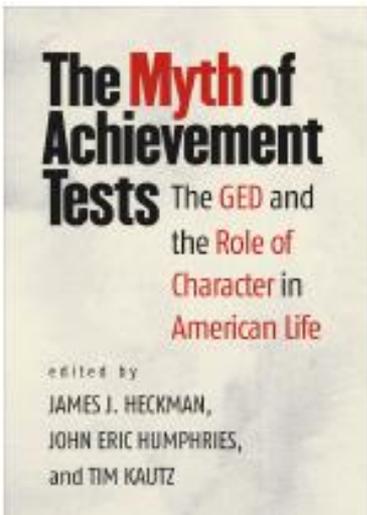


Socio-emotional Skills: The What, the Why, the How



Omar Arias
World Bank

Warsaw, October 2015

Outline

1. Socio-emotional skills: What are they?

- Beliefs, personality traits, behaviors

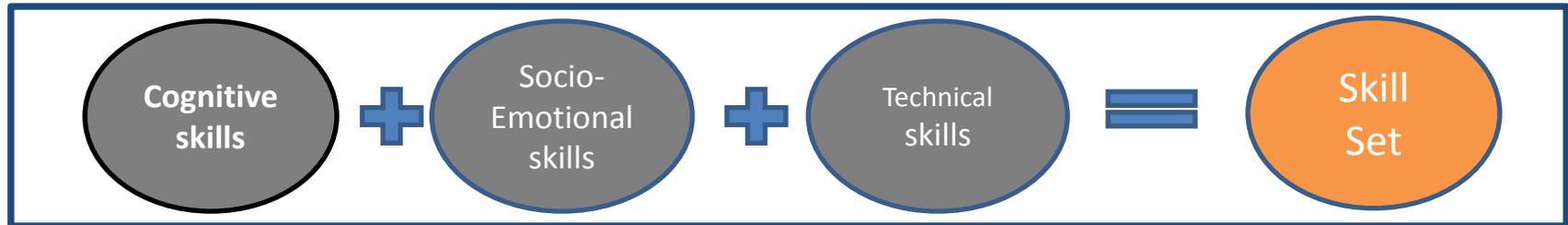
2. Why are SE skills increasingly important?

- Changes in the world of work and shifts in skills demand

3. How to develop them?

- Are SE skills Malleable?
- When, By whom?, How?
- Interventions: Do they work?, Known unknowns

What does it take to be a “well-educated” person in the 21st Century?



Cognitive

Involving the use of logical, intuitive and creative thinking

Raw problem solving ability vs. knowledge to solve problems

Literacy, numeracy, problem solving, memory (working and long-term) and mental speed

Socio-emotional

Beliefs, personality traits, Behavioral skills

Big-5: Openness to experience, conscientiousness, extraversion, agreeableness, emotional stability

Self-regulation, Grit/perseverance, decision making, self & interpersonal skills

Technical (job-task specific)

Involving manual dexterity and use of methods, materials, tools & instruments

Developed through VET/university or acquired on the job

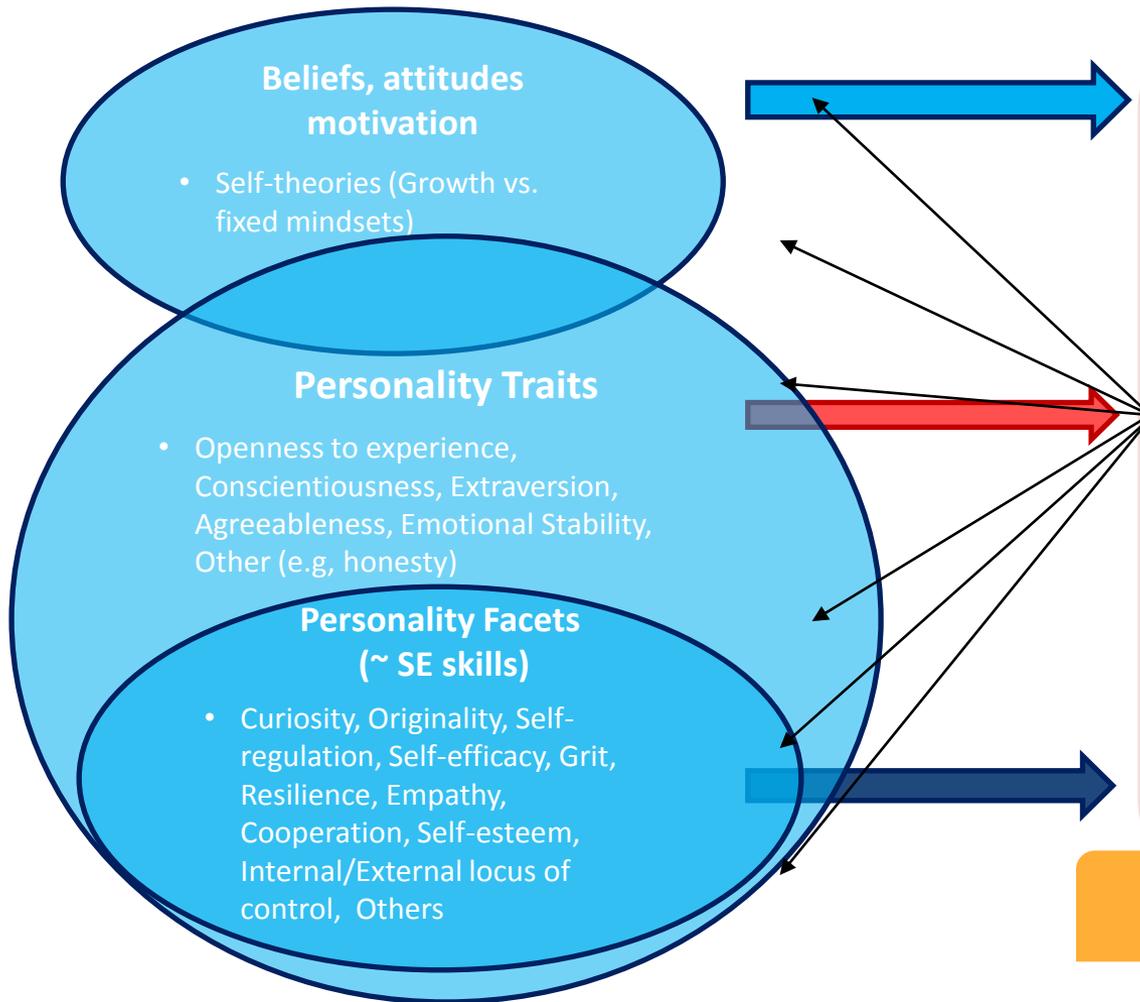
Related to specific occupations/trades (e.g. engineer, economist, IT specialist, plumber)

Socio-emotional skills

“Personality traits are the relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances”

(Roberts, 2009)

Personal characteristics



Observed behaviors

- Is self-disciplined, organized, on time, reliable/dependable, perseverant/persistent
- Shows initiative, Thinks outside the box, Problem solver
- Learns quickly, from mistakes
- Works well with others, Good with clients
- Guides, supervises others effectively

At school, in the workplace

Example: Facets of Conscientiousness

Impulse control

Responsibility

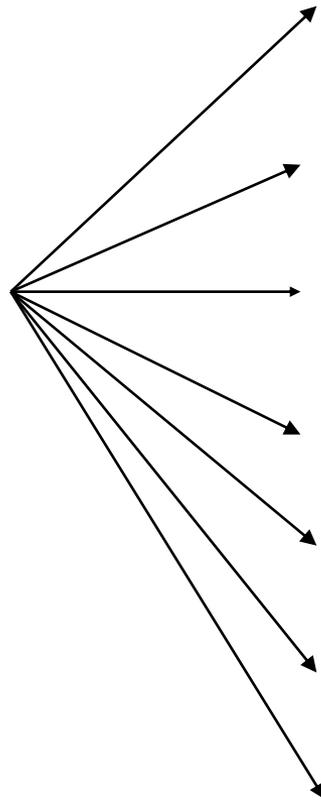
Orderliness

Industriousness

Conventionality

Punctuality

Formality



- Grit
- Self-control
- Delay of gratification
- Self-regulation
- Ego control
- Impulsivity
- Effortful control
- Resilience

How and Why is the Demand of Skills Changing?



Employers everywhere say socio-emotional skills are important

'Soft skills' highly sought after by employers

Psychometric testing aids McDonald's soft skills search



EDITED BY DAVID LEONHARDT
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PLAYS WELL WITH OTHERS

Why What You Learned in Preschool Is Crucial at Work

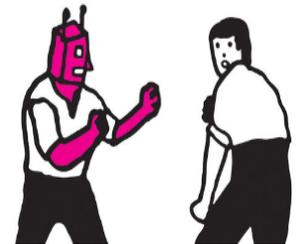
OCT. 16, 2015



Claire Cain Miller

@clairecm

For all the jobs that machines can now do – whether performing surgery, driving cars or serving food – they still lack one distinctly human trait. They have no social skills.



The Soft Skills All Employers Seek



Advice for youthful job-seekers:
Hone soft skills

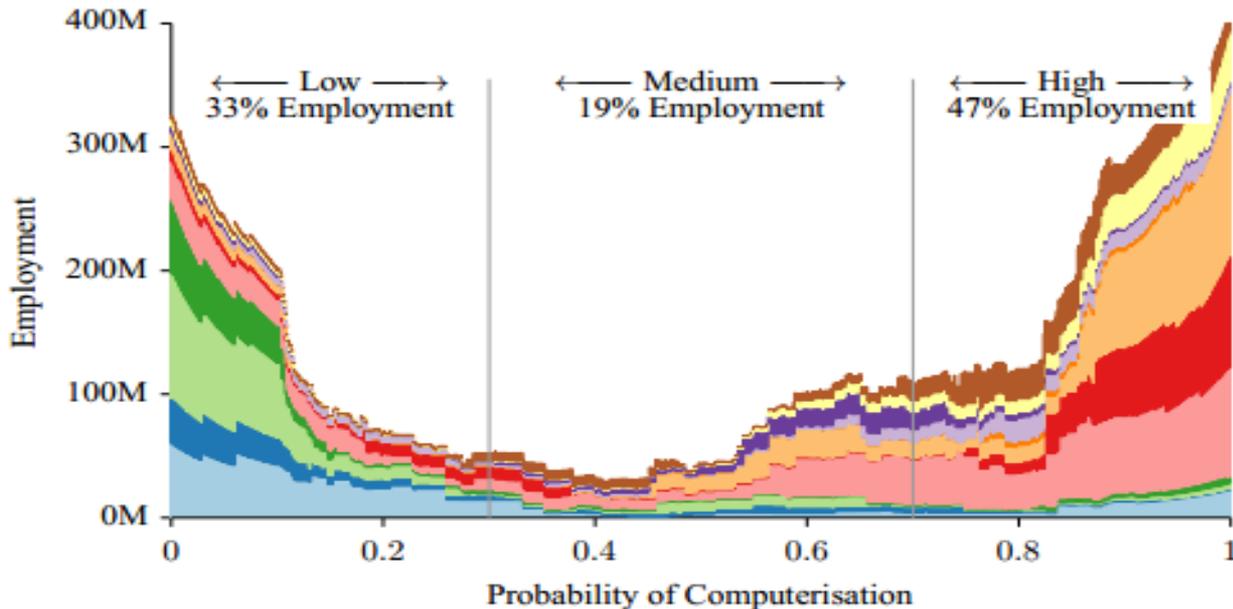
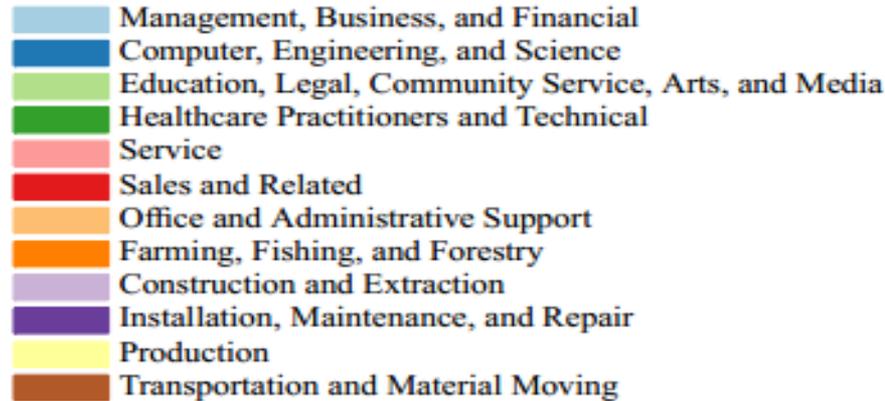
The 10 Skills Employers Most Want In 2015 Graduates

Susan Adams
Forbes Staff

Here are the 10 skills employers say they seek, in order of importance. NACE gave each a rating on a 5-point scale, where 5 was extremely important, 4 was very important, 3 was somewhat important, etc.:

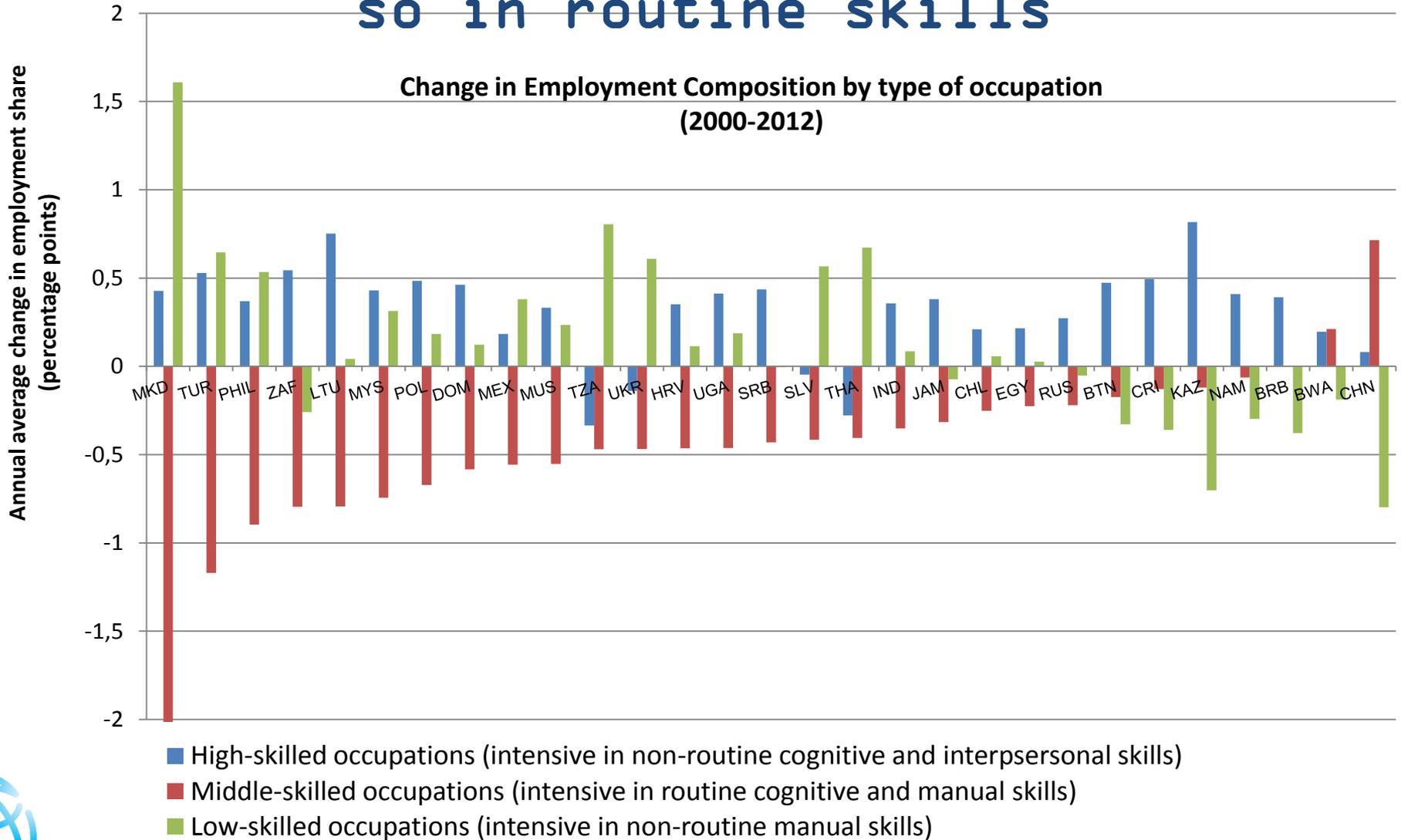
1. Ability to work in a team structure
2. Ability to make decisions and solve problems (tie)
3. Ability to communicate verbally with people inside and outside an organization
4. Ability to plan, organize and prioritize work
5. Ability to obtain and process information
6. Ability to analyze quantitative data
7. Technical knowledge related to the job
8. Proficiency with computer software programs
9. Ability to create and/or edit written reports
10. Ability to sell and influence others

Digital technologies (robots) are taking on more jobs



Source: [“The Future of Employment: How Susceptible Are Jobs to Computerization?”](#) by Carl Benedikt Frey and Michael A. Osborne, 2013

Work almost everywhere is becoming more intensive in non-routine skills and less so in routine skills



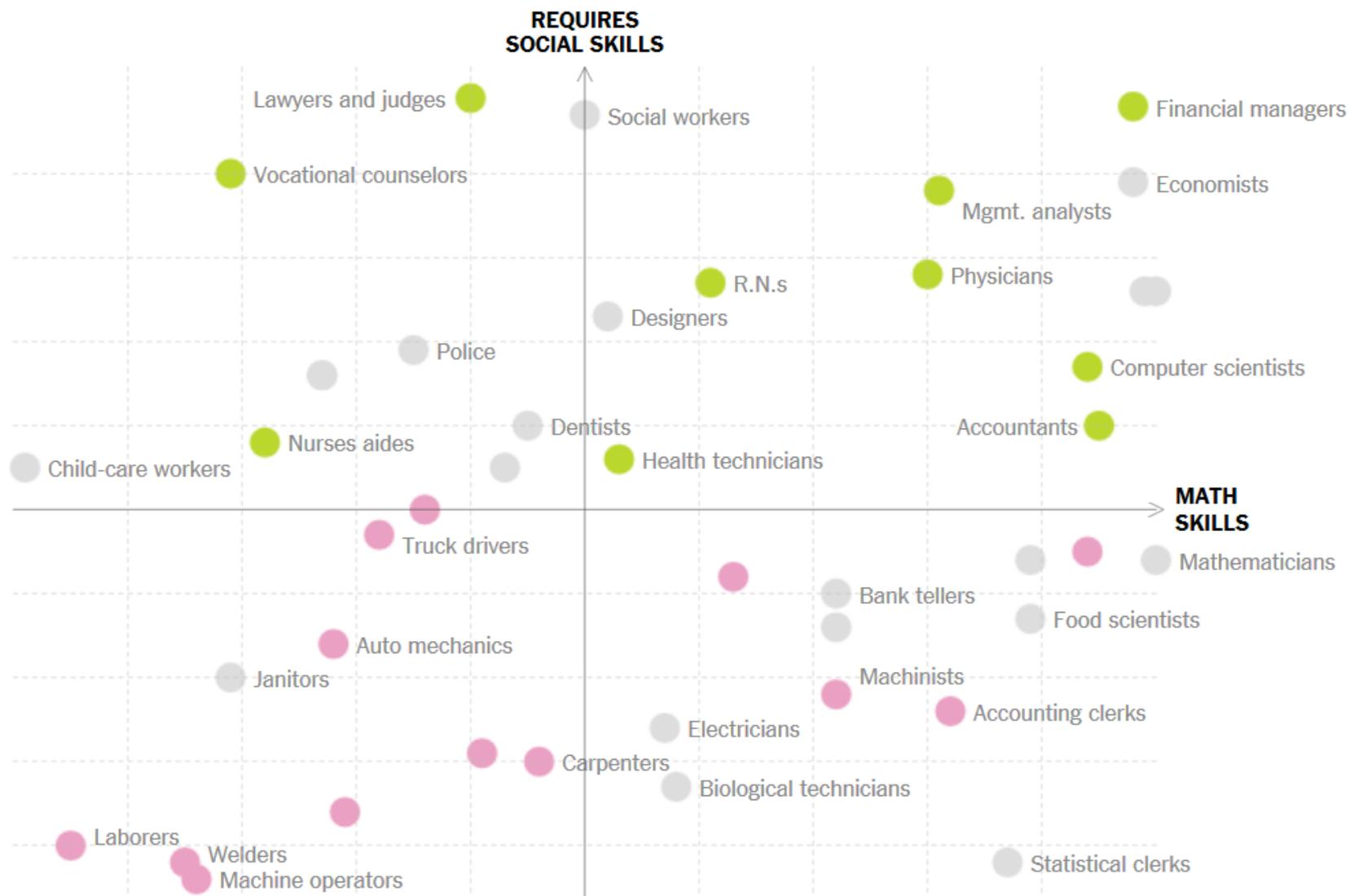
Source: World Bank WDR 2016 (forthcoming), based on ILO KILM data. For China, data comes from the Population Census for 2000 vs 2010.



Demand seems to favor jobs requiring both non-Routine Cognitive and Socio-emotional skills

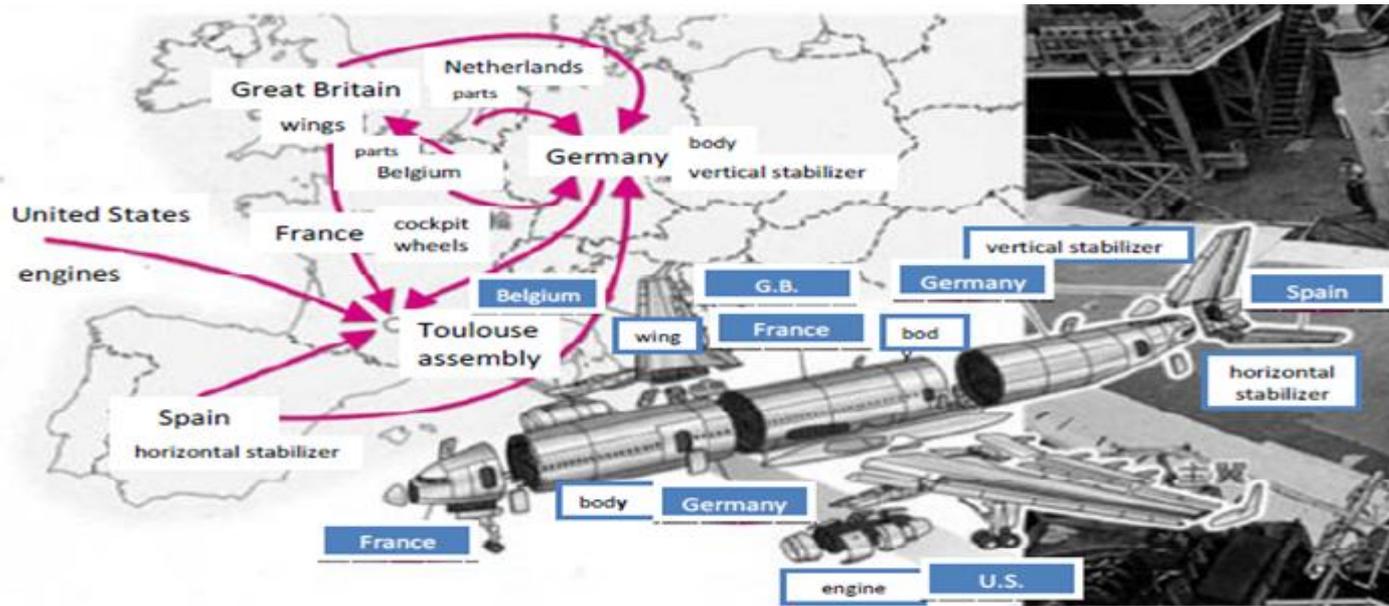
Innovation | Skills and automation

KEY: Change in share of jobs, 1980 to 2012 ● Fell ● About the same ● Grew



Source: Deming (2015), "The Growing Importance of Social Skills in the Labor Market", NBER WP No. 21473

Outsourcing and workplace reorganization increases the need for self-directed workers



Producing the Airbus:

- involves manufacturing workers across 7 countries

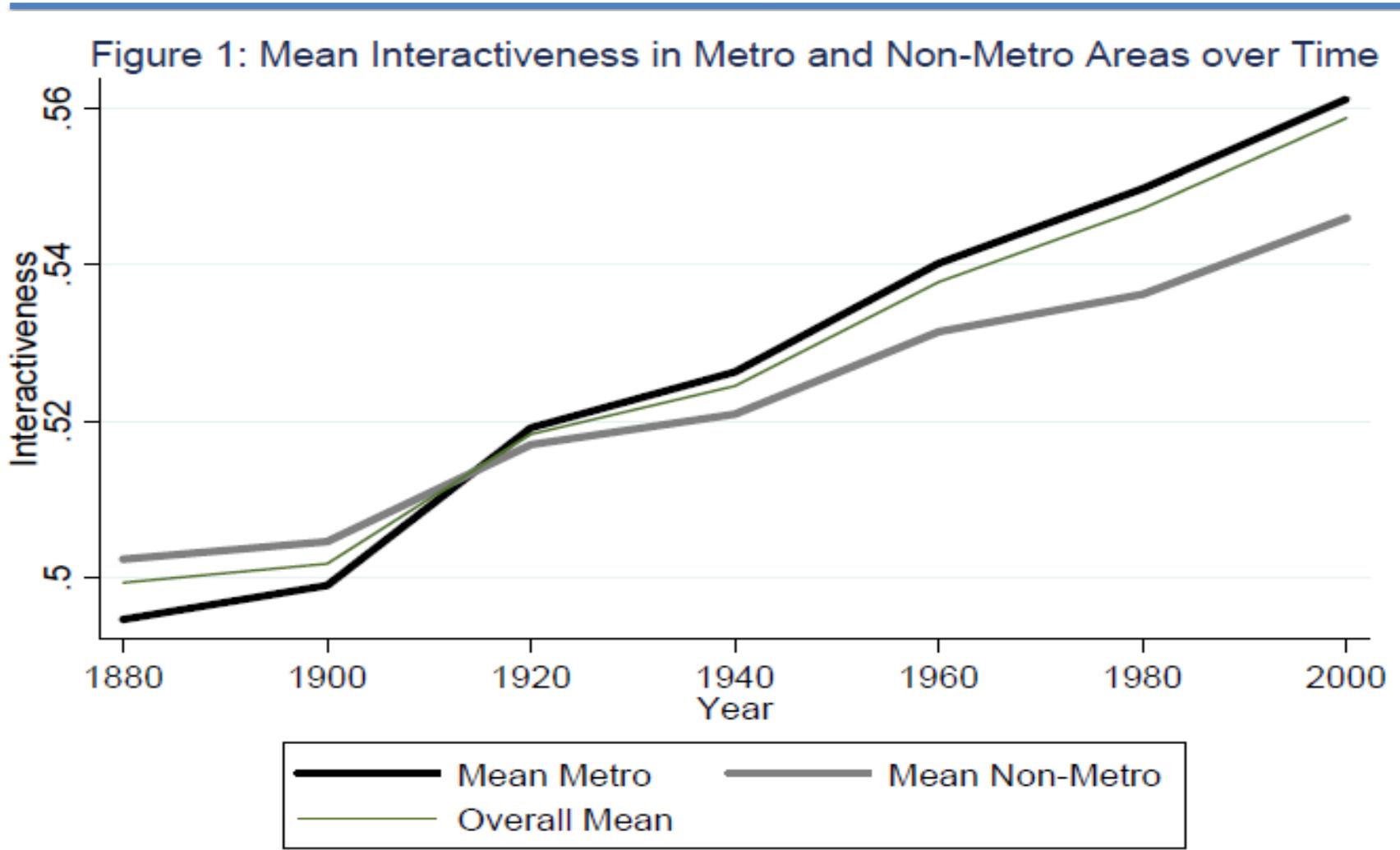
Producing the iPhone

- Mainly 2 countries:
(US, China):

US manufacturing workers = 0



Agglomeration comes with jobs involving tasks that require more communication and personal interactions (e.g., services)



Notes: Mean interactivensess computed using time-invariant occupational descriptions from the 1991 DOTs.

**How to develop socio-emotional
skills?**

Smart Timing and Targeting of Socio-emotional Skills interventions

Big 5 traits	Associated socio-emotional skills	Optimal age of development				
		0-5	6-11	12-18	19-29	30+
• Conscientiousness	Problem-solving	F	O	O	R	
• Conscientiousness / Grit • Emotional stability	Resilience	O	O	R		
• Conscientiousness • Openness to experience	Achieve motivation		O	R	R	
• Conscientiousness	Control	O	O	O	R	
• Extraversion • Agreeableness	Teamwork	O	O	R		
• Conscientiousness • Openness to experience	Initiative	O	O	O	O	
• Emotional stability	Confidence	F	O	O	R	
• Conscientiousness	Ethics	F	O	O		

Personality traits do change across the life

PATTERNS OF MEAN-LEVEL CHANGE

15

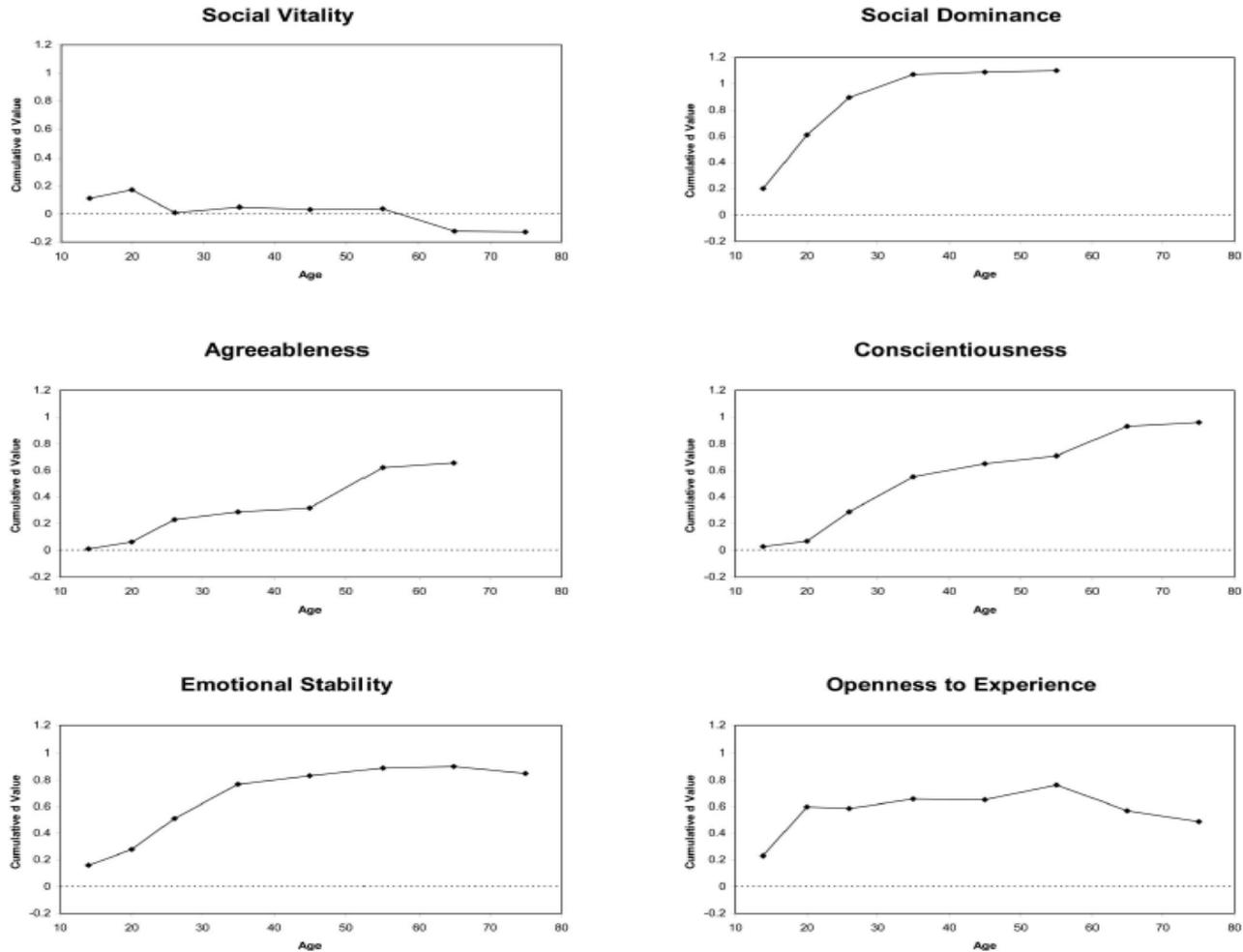


Figure 2. Cumulative *d* scores for each trait domain across the life course.

Typology of Socio-emotional Skills Interventions

School-wide approaches

- **System-wide reforms to incorporate SE skills in learning standards, curricular reforms**– Australia, Colombia, some US states (Illinois, NY, CA)
- **School-wide approaches and/or teacher training** – Tools of the Mind, KIPP schools, Escuela Nueva (Colombia), Escuela Amiga (Peru), Chicago One-Goal

Stand-alone interventions

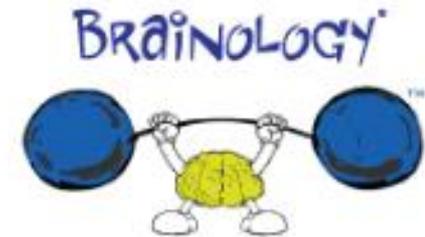
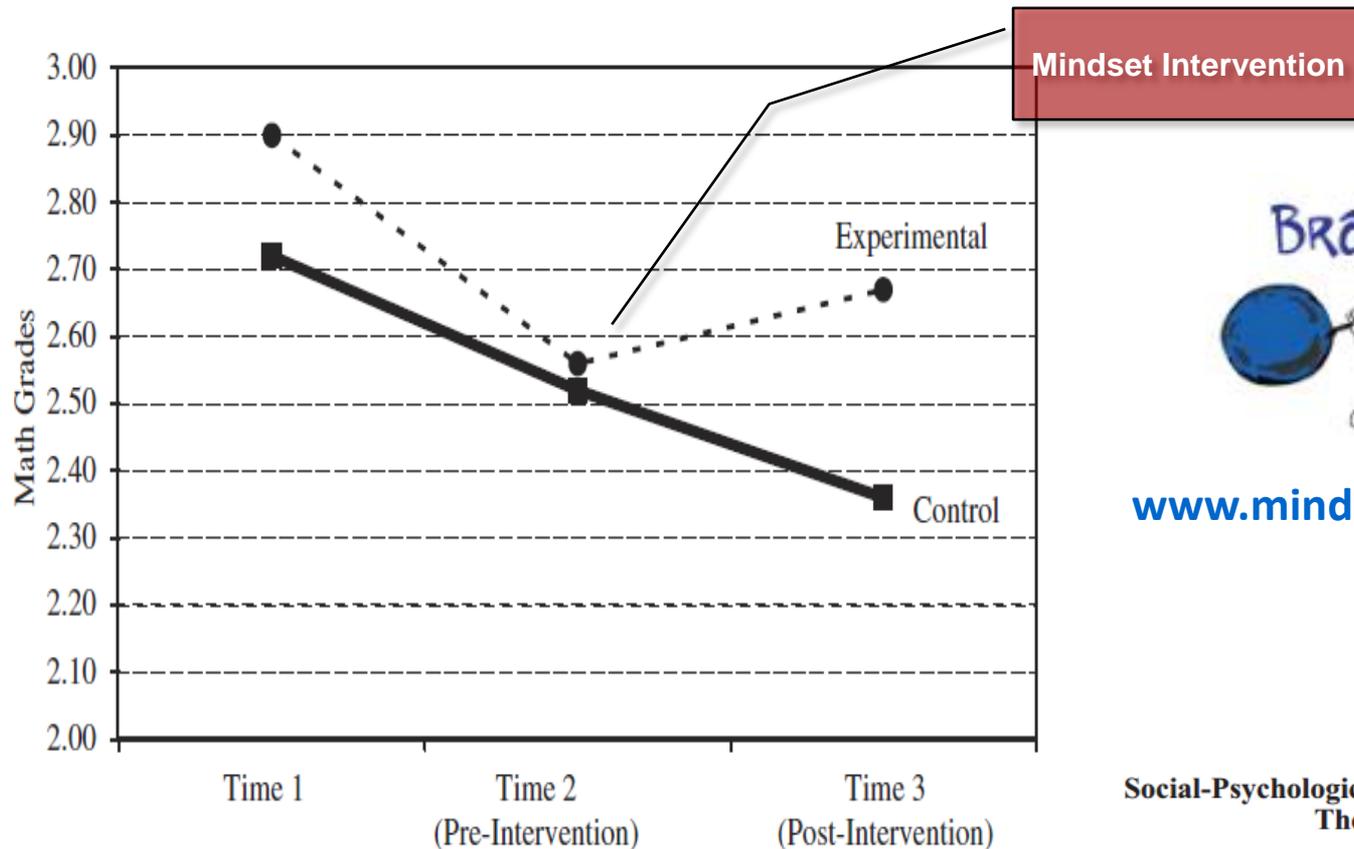
- **School-based multi-facet programs**- Extra-curricular, after-school programs
- **Targeted interventions**– Jamaica ECD (parenting) program, Mexico (high school), Mindset, Grit, PATH, MCII (self-regulation strategies), 

Post-school programs

- **Youth programs**- Year Up, LAC *Jovenes* work-based programs 
- **Adult programs**— MCII, Small scale interventions 
- **Apprenticeships**

Yes, You can: Nurturing Growth Mindsets

- Intervention that taught about malleability of intelligence and skills reversed downward trend in math grades among seventh-graders in New York City public schools



www.mindsetworks.com

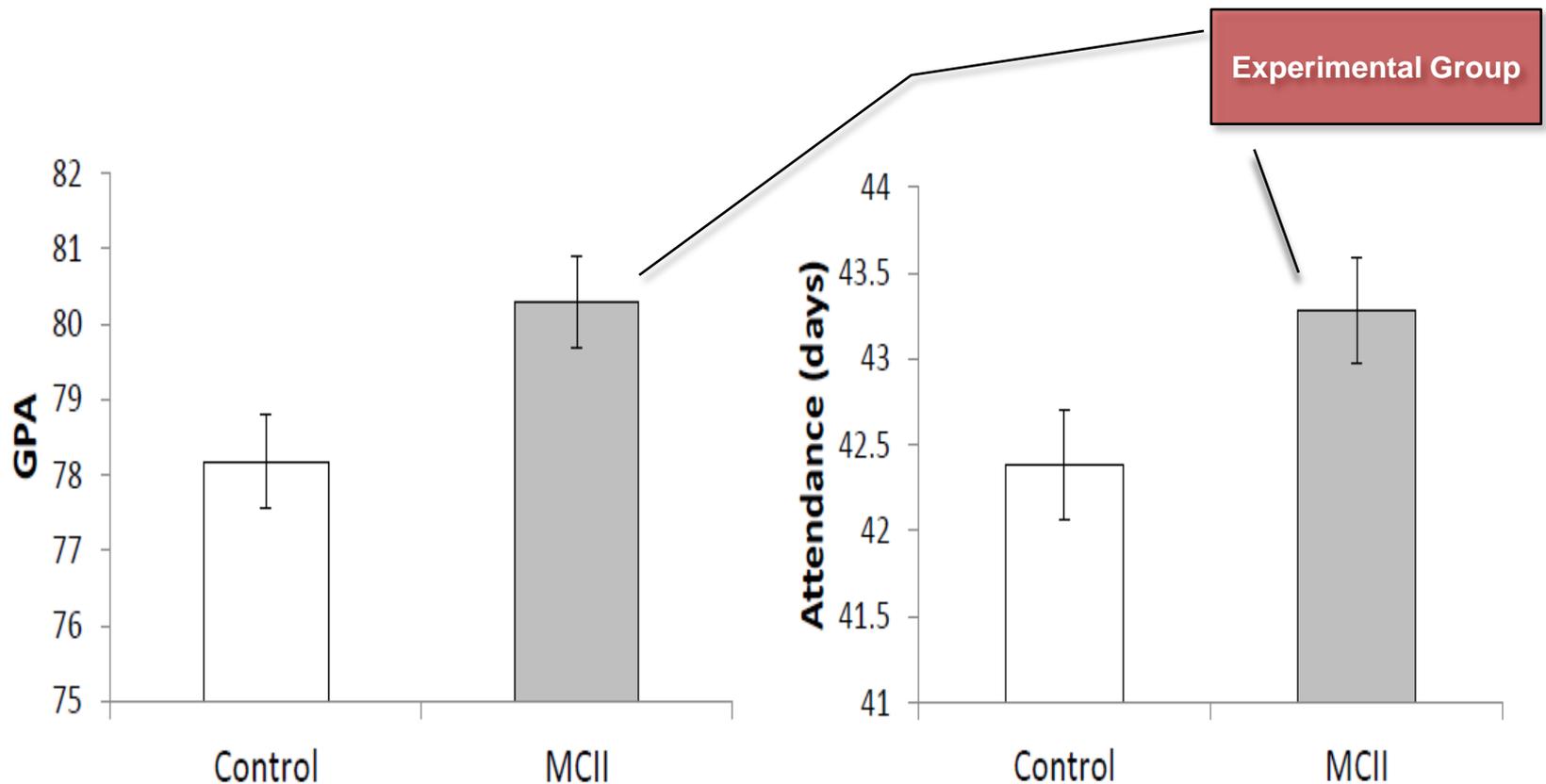
Review of Educational Research
June 2011, Vol. 81, No. 2, pp. 267–301
DOI: 10.3102/0034654311405999
© 2011 AERA. <http://rer.aera.net>

**Social-Psychological Interventions in Education:
They're Not Magic**

David S. Yeager and Gregory M. Walton
Stanford University

Finish that homework: Teaching Kids Self- Regulation Strategies

- Intervention that taught MCII (self-regulation strategies for goal-setting, planning, acting) improved GPAs and attendance rates among fifth-graders in Pennsylvania public middle schools.



Fail, Try Again, Get Better at it: Teaching Grit

- Intervention that taught Grit (goal-setting, that one can improve through effort, not to be discouraged by failures) improved Grit-like behaviors and top grades performance among fourth-graders in Istanbul.

Table 9: Spring Grades - Percent Students with Top Grades

	(1) Math	(2) Turkish	(3) Life/Social Sc.	(4) All
Treatment	0.020 (0.02)	0.007 (0.03)	0.047 (0.03)	0.032** (0.02)
Gender (Male=1)	0.022 (0.01)	-0.046*** (0.01)	0.023* (0.01)	0.012 (0.01)
Raven	0.062*** (0.01)	0.047*** (0.01)	0.037*** (0.01)	0.057*** (0.01)
Math (pre)	0.006*** (0.00)	0.003*** (0.00)	0.003*** (0.00)	0.005*** (0.00)
Life/Social Sc. (pre)	0.006*** (0.00)	0.006*** (0.00)	0.008*** (0.00)	0.006*** (0.00)
Turkish (pre)	0.001* (0.00)	0.005*** (0.00)	0.005*** (0.00)	0.004*** (0.00)
Class size (ln)	0.038 (0.03)	0.071 (0.05)	-0.037 (0.06)	0.031 (0.03)
Control Mean	0.18	0.16	0.18	0.12
N	2149	2148	2149	2132

Source: Alan, Boneva, Ertac (2015)

Teaching Grit in Macedonia

- Nation-wide intervention in 6th - 7th grades, RCT evaluation with two-treatment arms (students-only, students and teachers treated)
- Delivery: several short weekly lessons in life-skills class to teach Grit principles: Deep Practice, Grit Mentor, Grit Identity



Today, you are going to learn about the three main reasons that students choose not to do deep practice.

1. Deep practice involves failure
2. Deep practice is frustrating
3. Students think talent is all that matters

In today's lesson, you'll learn more about each of these three things.

"Hi, So I'm a 4th grader and I guess you could say that grit is something I don't do so well. When I'm learning something new in school and I'm not getting it, I just want to race through it so I can be done. My teacher tells me to have patience and that I gotta really focus and try my best when stuff is hard. Also when the teacher gives us extra stuff to practice I should do it, but I usually just do the smallest work I can do to get by. The teacher said maybe since you're a 6th grader you could give me some tips. I guess it's good to be gritty, but I'm not sure how or what I should do. Thx, Bianca"

Youth Skills Training in Dominican Republic

1. For disadvantaged youth out of work, age 16-29, did not complete high school
2. Classroom-based training (225 hours)
 - A. **Vocational training** (150 hours) tied to needs of local employers
 - B. **Life skills training** (75 hours): Self-esteem, communication, conflict resolution, goal-setting, time management, team work, decision making
3. Apprenticeships in private companies (240 hours)
 - **On the Job Learning**: 6 hours per day during 8 weeks
 - **Counseling** with the training provider: 4 hours per week (8 weeks)
4. RCT: A+B; B; control group

Earlier evaluations indicate impacts arise largely from SE skills

Long-term (6-7 yrs) RCT evaluation:

- Long-term impacts:

Ibarran et al (2015)

Increased Formal Employment				
All	Men	Santo Domingo	SD women	SD Men
18%	25-27%	31-39%	33-60%	35%

Higher Earnings
SD women 25-31%

Jovenes – Youth Employment training in Colombia lead more men and women to go back to education

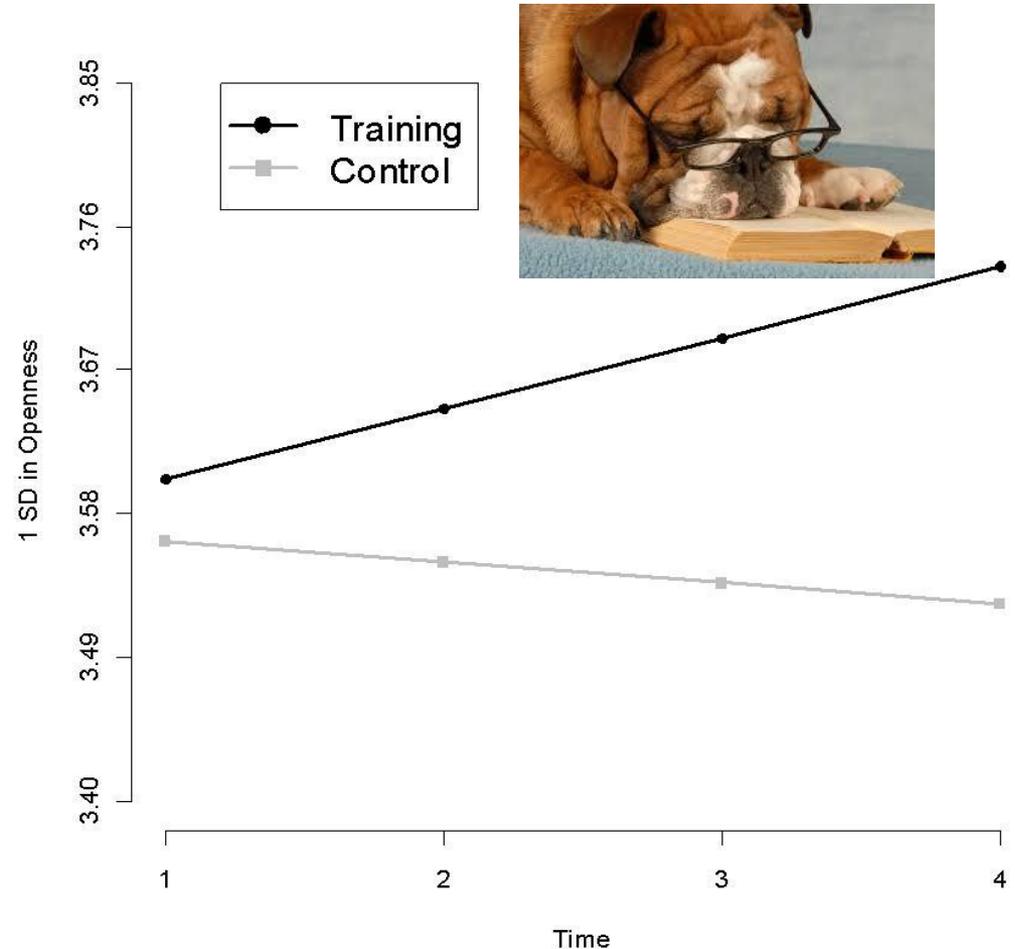
- Prior short-term evidence (Attanasio, Kugler, Meghir 2011)
 - One year after the lottery, training offer increased the probability of paid employment by 7pp and earnings by 20 percent among women.
 - No short term labor market effects among men.
- Long-term (10 years) impacts on further education (Kugler et al 2015)

	Enrolled in University	Enrolled in Vocational College	Enrolled in University	Enrolled in Vocational College	Enrolled in University	Enrolled in Vocational College
	Full Sample		Male		Female	
Treated	0.025** (0.011)	0.010* (0.005)	0.043** (0.017)	(0.002) (0.009)	0.011 (0.014)	0.020*** (0.007)
Control Mean	0.110	0.024	0.116	0.035	0.105	0.015

Teaching an Old Dog New Tricks: Increasing Openness among older adults

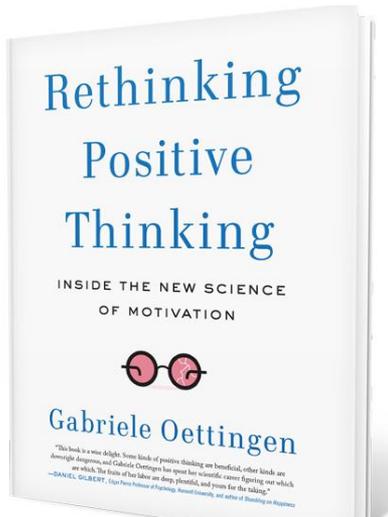
- 183 older adults (Mean age = 73)
- Half randomly assigned to wait list control group, and half received 16 week inductive reasoning training as well as Sudoku and NY Times cross-word puzzles.
- Inductive reasoning and openness to experience were assessed four times in both groups over a 30 week period (before, during, and 5 weeks after training)

Changes in openness

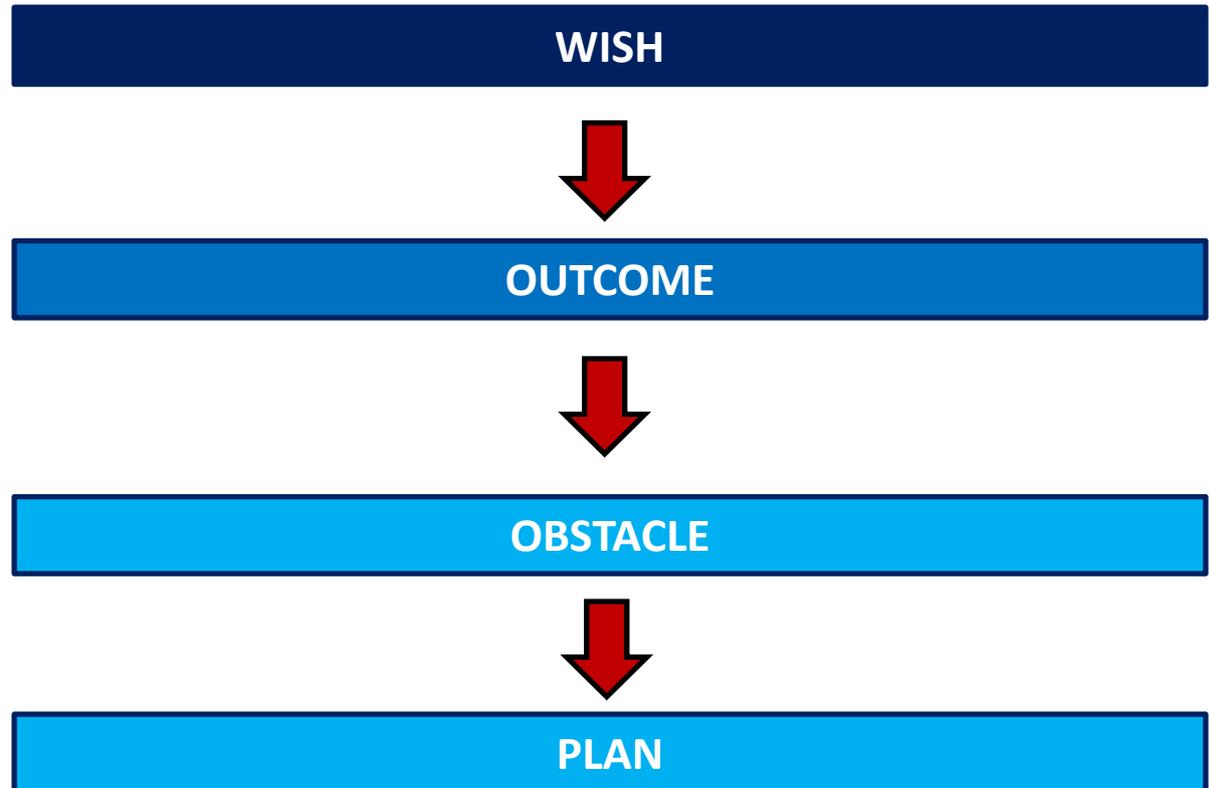


Teaching goal-setting and self-regulation strategies to Jobseekers in Turkey

- Designing an intervention to teach MCII to Jobseekers (youth and adults) in Turkey, with two-treatment arms RCT evaluation



MCII → WOOP



Emerging Lessons, Known Unknowns

1. Getting on the same page with psychologists
2. Many unknowns: right dose, sequencing, single vs. multi-facet, long-term impacts
3. Key to prototype scalable interventions
 - Planning for low technology environments (unlike many of the interventions in the US)
 - Integrating into existing structures (as much as possible)
 - Training of teachers, job counselors, etc

For more information, contact the “WB Grit Team”:

- ❑ Omar Arias, Global Lead for Skills
- ❑ Victoria Levin, Economist
- ❑ Ana Maria Muñoz, Senior Social Scientist
- ❑ Indhira Santos, Senior Economist



#practicemakesperfect

#nevergiveup

#tryhard

#deeppractice4life

#tryhardandaccomplish

#work24/7