



Principals' Leadership: Professional standards, Trends and Myths

KIT-TAI HAU
The Chinese University of Hong Kong



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- I. NEW (2018): Professional Standards for Teachers and Principals of Hong Kong**
- II. Understanding High Achieving Economies: Finland, Singapore, Korea, Japan, Estonia, China (Shanghai)**
- III. Explaining the Myths (if you haven't heard that before)**



I. The Standard Framework, e.g. Professional Standard for Teachers, OECD (2013) – summarizing world standards

Disciplinary knowledge	Pedagogic Practice	Values & professional teaching practice
1. Knowledge and understanding of the subject (expressed in general terms)	1. Know, value and teach according to student characteristics (cultures, needs...)	1. Be committed to students' learning and development
2. Subject knowledge	2. Understand and use knowledge about how students learn (theories of learning and development)	2. Reflect on his or her teaching practice
	discipline, assessment, counselling.....	Commitment...



I. The Standard Framework: Principal Standard, e.g., OECD summary (2013)

Domain	Example
1. To establish a guiding mission	<ul style="list-style-type: none">Organises the formulation of the institution's mission
2. To generate organisational conditions	<ul style="list-style-type: none">Organises time to support teaching
3. To create harmony within school	<ul style="list-style-type: none">Manages conflict resolution
4. To develops self and others	<ul style="list-style-type: none">Motivates teachers intellectually and professionally
5. To do pedagogical management	<ul style="list-style-type: none">Analyses information for decisions

Nurture Learners Today and Leaders Tomorrow

培育今日學生，成就明日領袖

Align with
local &
internat'nal
edu policies
and practices

Student-centred
Approach &
Key
Competences
Orientation

Teachers 教師	Students 學生	Principals 校長
Caring Cultivators <i>of All-round Growth</i> 關愛學生的育才者 支援全人成長	Whole-person Wellness 達至全人健康	Ethical Enablers <i>of All-round Growth and Balanced Advancement</i> 以德潤才的躬行者 貫徹全人成長及均衡發展的理念
Inspirational Co-constructors <i>of Knowledge</i> 啟發學生的共建者 結伴建構知識	Key Competences for Adulthood 具備成年階段所需的素養	Versatile Architects <i>of Vibrant Learning Organisations</i> 博學啟思的建策者 塑造好學敏求的學習型組織
Committed Role Models <i>of Professionalism</i> 敬業樂群的典範 彰顯專業精神	Change Agility for Tomorrow 靈活應對未來的轉變	Visionary Edupreneurs <i>of Educational Transformation and Continuous School Improvement</i> 高瞻遠矚的創建者 推動教育變革及學校持續進步



II. Understanding high achieving economies (Finland, Singapore, Korea, Japan, Estonia, China (Shanghai))

OECD

TALIS Teaching and Learning International Survey 36 countries/economies

- On teachers and principals: conditions and learning environment, 2008, 2013, 2018 (2018 not published yet)
- This presentation based on 2013
- We concentrate on 6 high achieving countries: ESTonia, FINland, JaPaN, KORea, SHAnghai, SinGaPore (EST, FIN, JPN, KOR, SHA, SGP)



Participating countries and economies

OECD countries: Alberta (Canada), Australia, Chile, the Czech Republic, Denmark, England (United Kingdom), Estonia, Finland, Flanders (Belgium), France, Iceland, Israel*, Italy, Japan, Korea, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden and the United States**.

Partner countries and economies: Abu Dhabi (United Arab Emirates), Brazil, Bulgaria, Croatia, Cyprus***, Latvia, Malaysia, Romania, Serbia and Singapore.

Participants

Lower secondary teachers and leaders of schools in 200 schools per country/economy were randomly selected (20 teachers and 1 school leader per school). Some 107 000 lower secondary teachers responded to the survey, representing more than 4 million teachers in more than 30 participating countries and economies.

Who are our teachers?



68% are women

91% completed university or other equivalent higher education

90% completed a teacher education or training programme

82% are employed full time and **83%** have a permanent contract

88% report that they had participated in at least one professional development activity during the 12 months prior to the survey



Who are our school leaders?

51% are men

96% completed university or other equivalent higher education

90% completed a teacher education or training programme, **85%** completed a school administration/principal training programme, and **78%** completed instructional leadership training

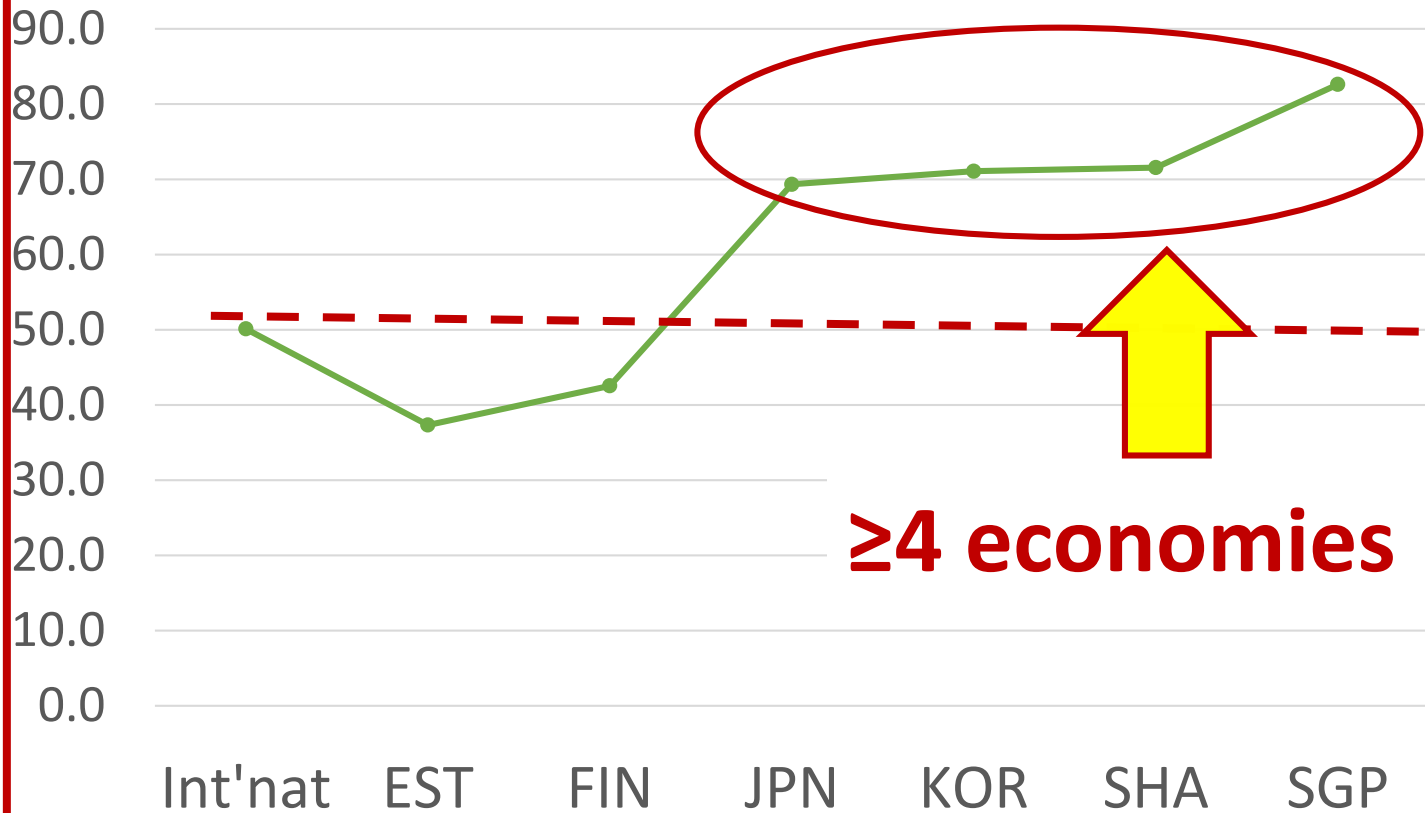
62% are employed full time without teaching obligations, and

35% are employed full time with teaching obligations



3 categories: common, bipolar, no trend

I took/take part in general and/or administrative introduction Yes



Common:
33/202 = 16%

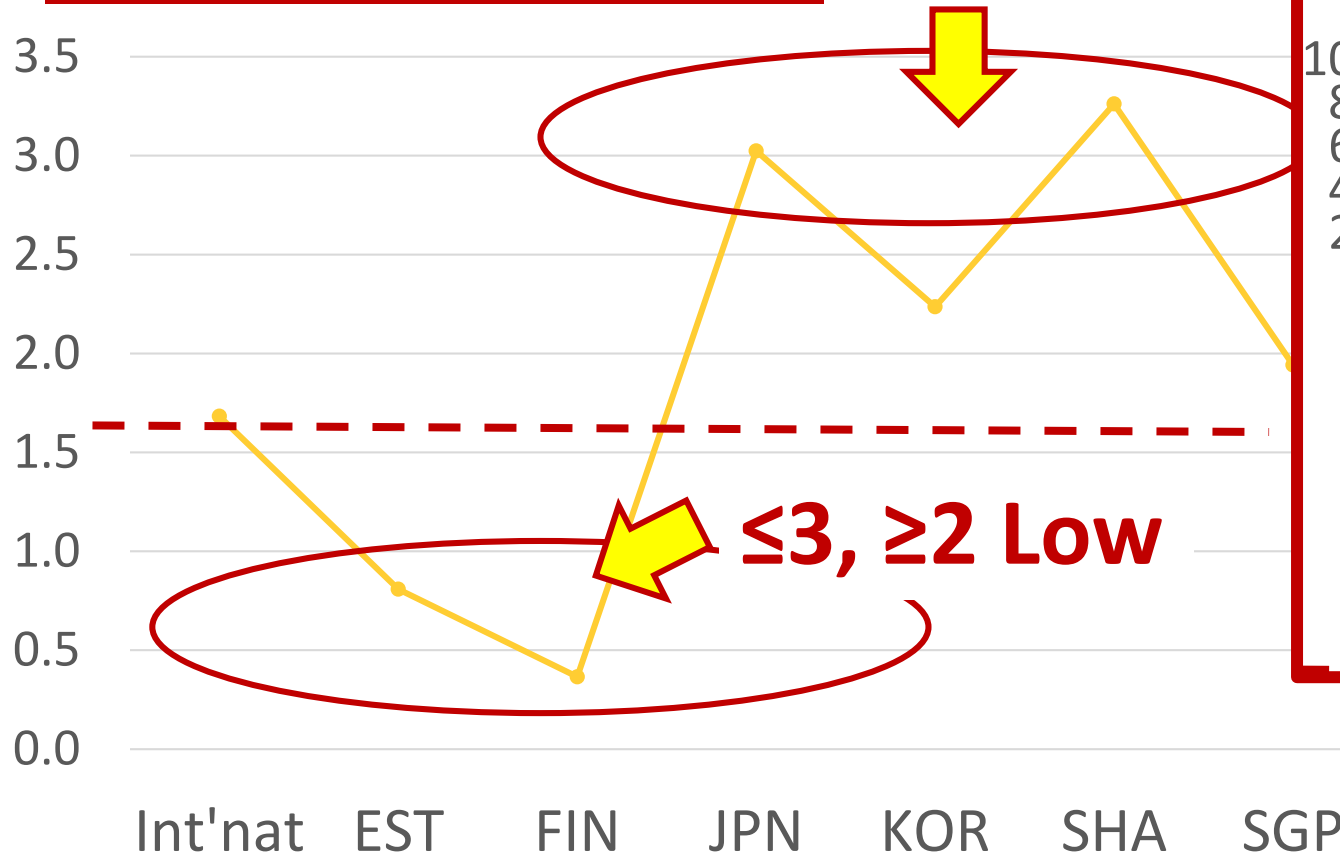
3 categories: common, bipolar, no trend



Participation in school management

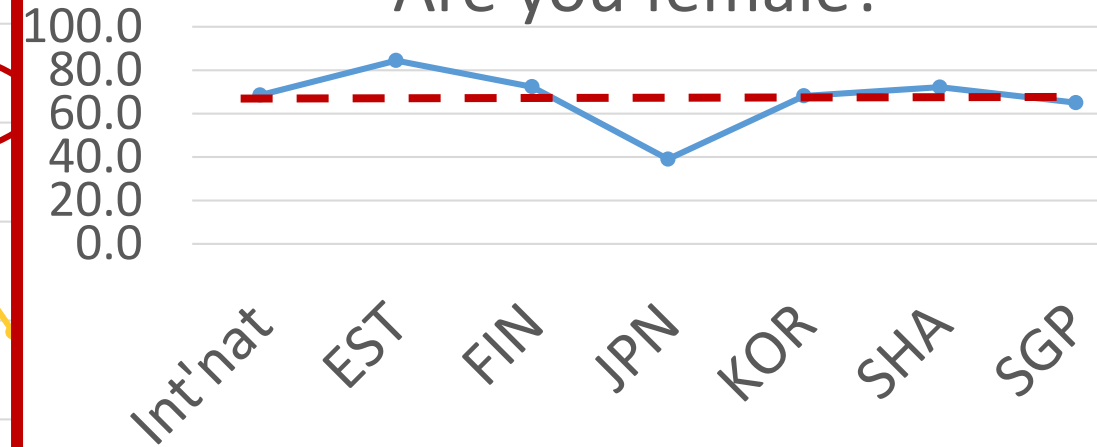
Bipolar: 30/202 = 15%

$\leq 3, \geq 2$ Hi



$\leq 3, \geq 2$ Low

Are you female?



No trend: 139/202 = 69%



Common: Bkgd

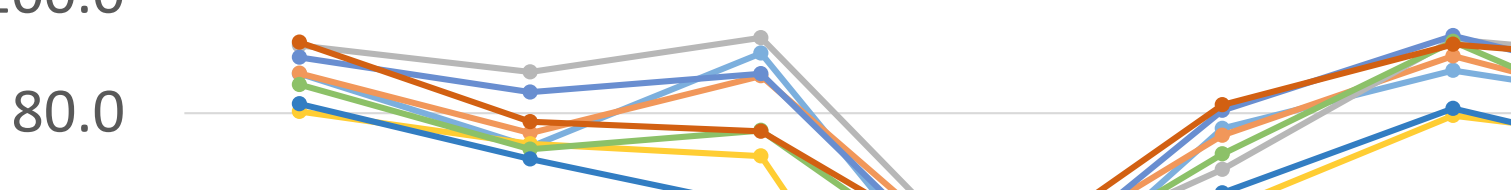


Prof Development:

- **Pedagogy + classroom practice, all humbly want more**
- **involve other academic dept**

- NOT know well: Content, Pedagogy, Classroom Practice (FIN, JPN, KOR, SGP)

—●— Content of subject(s) I teach :well to v well
 —●— Pedagogy of subject(s) I teach :well to v well
 —●— Classroom practice in the subject(s) I teach Well to Very well



Common: Teaching in general

- JPN, KOR, SGP, EST (not FIN, SHA)
- Need: Craft good questions, control disruptive expectations, help students think critically, calm disruptive students, use variety assessment strategies, provide alternative explanation

Other than SHA, low efficacy + NEED: questioning, control disruptive behavior, help critical thinking, assessment, provide alternative explanation

FIN: have confidence in question, disruptive beh, but need other high order teaching

- Calm student disruptive or noisy Quite a bit to A lot
- Use variety assessment strategies Quite a bit to A lot
- Provide alternative explanation Quite a bit to A lot

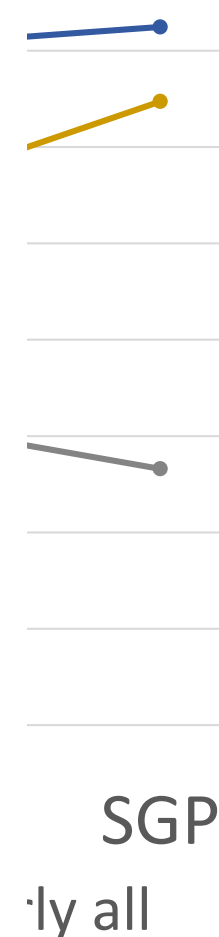
**Common:
Your Teaching**

80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0

**Long project, own assessment,
written feedback on top of mark:
NOT HAPPENING**

**a) public belief/impression
wrong**

**b) these new strategies not
effective? need
improvement/enhancement?**



- Not work on long project (EST FIN, JPN, KOR)(except SHA, SGP)
- NOT administer own assessment (JPN, KOR, SHA, EST)
- NOT provide written feedback on top of mark (FIN, JPN, EST, KOR)(SHA, SGP provided fdbk)

— Student
— I develop/administer own assessment :Freq/nearly all
— I provide written feedback on S work add'n to <mark> :Freq/nearly all



Common: sch climate



**Students high performance;
Teachers hate/not satisfied.
Implication: Who should take course?**

- Don't want to be teacher, want to change sch, don't enjoy work this sch, don't recommend my sch gd place to work, don't satisfied with performance, not satisfied with work, (EST, JPN, KOR, SHA, SGP)(FIN int'n mean)

Edu Bureau + Principals S Ach at a cost on T

- But their P: sch staff share common beliefs about schooling (FIN int'n mean)
- P: no shortage of IT, internet
- P: Students do not cheat (other than EST)

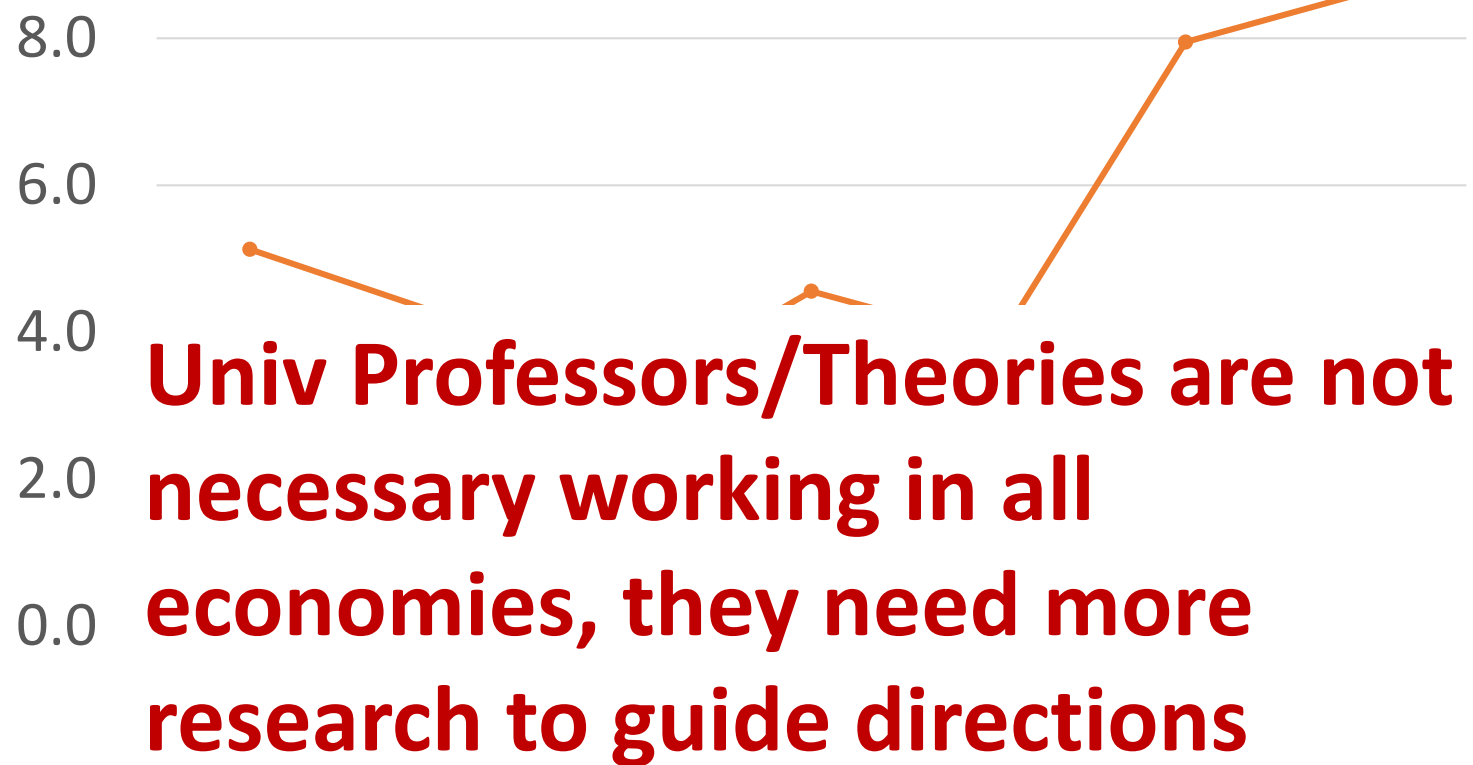
- School staff share common beliefs on schooling :Agree/S agree
- Short computers for instruction :some extent /A lot
- Insufficient internet :some extent/A lot
- students Cheating Weekly/ Daily



Here are the Bipolar, Dissimilarities across High Achieving Economies

These are not universal medicines for ALL

Bipolar: time spent



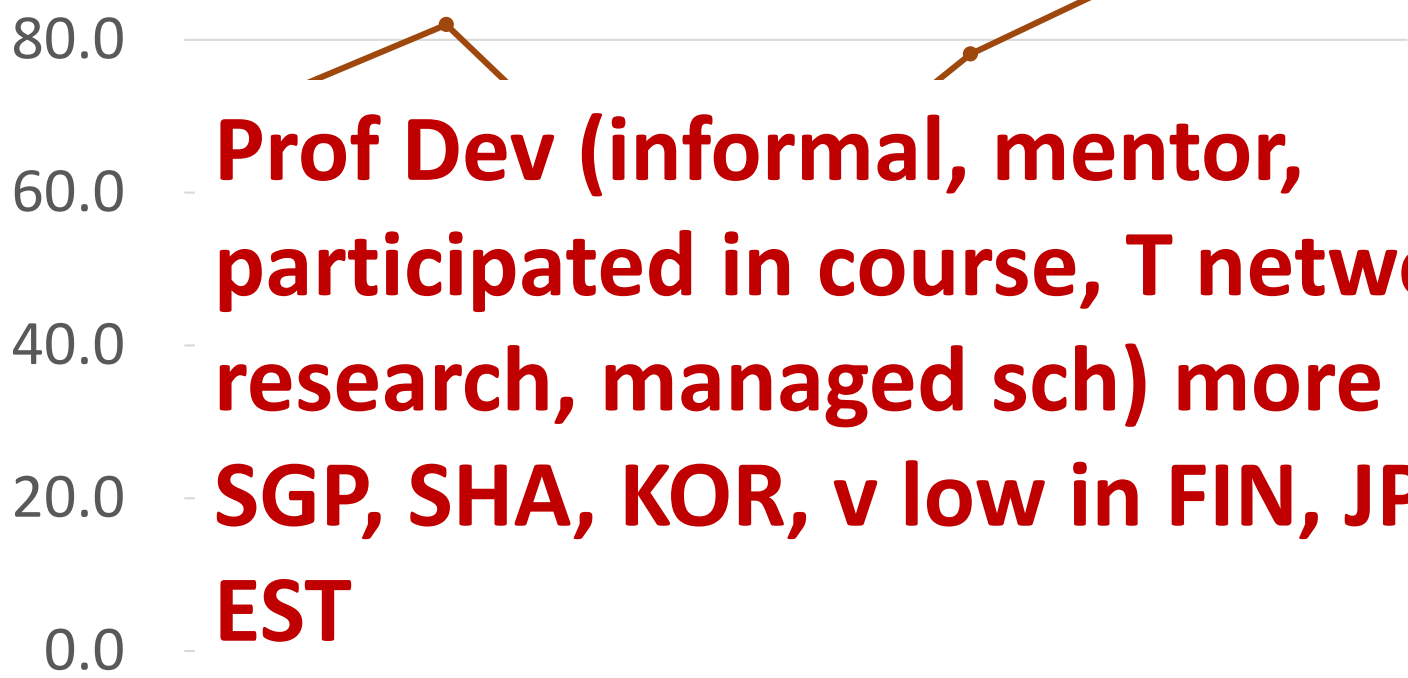
Univ Professors/Theories are not necessary working in all economies, they need more research to guide directions

- Team work and dialogue with colleagues
- Marking/correcting of student work
- Participation in school management
- Commut'n co-op'n parents
- others

- JPN, SHA, SGP spent time on team work (but EST, FIN low)
- SHA, SGP spent time mark/correct student work, but FIN, KOR low
- JPN, KOR, SHA spent time on sch management, but EST, FIN seldom
- KOR, SHA work with parents, but EST, FIN, JPN v low
- EST, FIN little other tasks, JPN, KOR, SGP a lot



Bipolar: Prof Dev



Prof Dev (informal, mentor, participated in course, T network, research, managed sch) more in SGP, SHA, KOR, v low in FIN, JPN, EST

What we valued NOT there in FIN, JPN, academic explanation needed?

- network of teachers Yes
- Individual/collaborative research Yes
- Sch manage't adm High need

- GP took part in informal prof dev; JPN, SHA did not
- SHA, SGP has present mentor, FIN did not
- FIN participated in courses; FIN, JPN did not
- HA, SGP participated in research; FIN, JPN did not
- GP research, FIN, JPN did not
- HA, SGP: extended prof dev; FIN, KOR did not
- SHA, KOR, JPN managed/Adm, EST, FIN did not

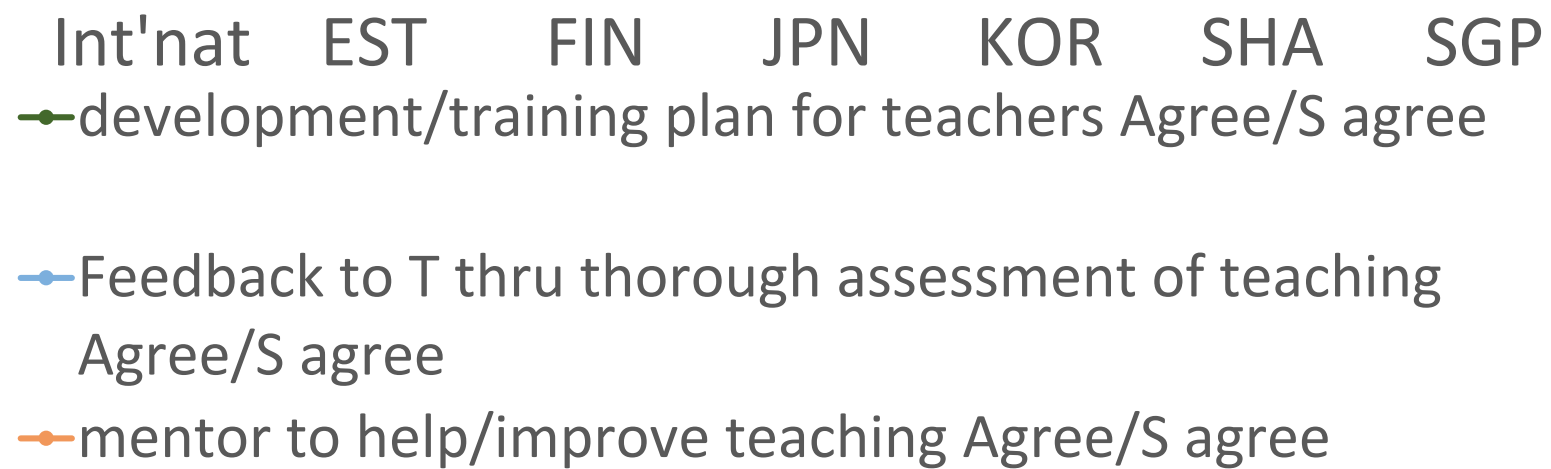


Bipolar: T feedback

100.0
80.0
60.0
40.0
20.0
0.0

Prof Dev (T development plan, feedback to T thru assessment of T Teach, mentor) high in SHA, SGP; but v low in FIN, JPN; need more study

- SHA SGP high in T development plan, feedback thru assessment of T teaching, mentor; FIN, JPN v low in above





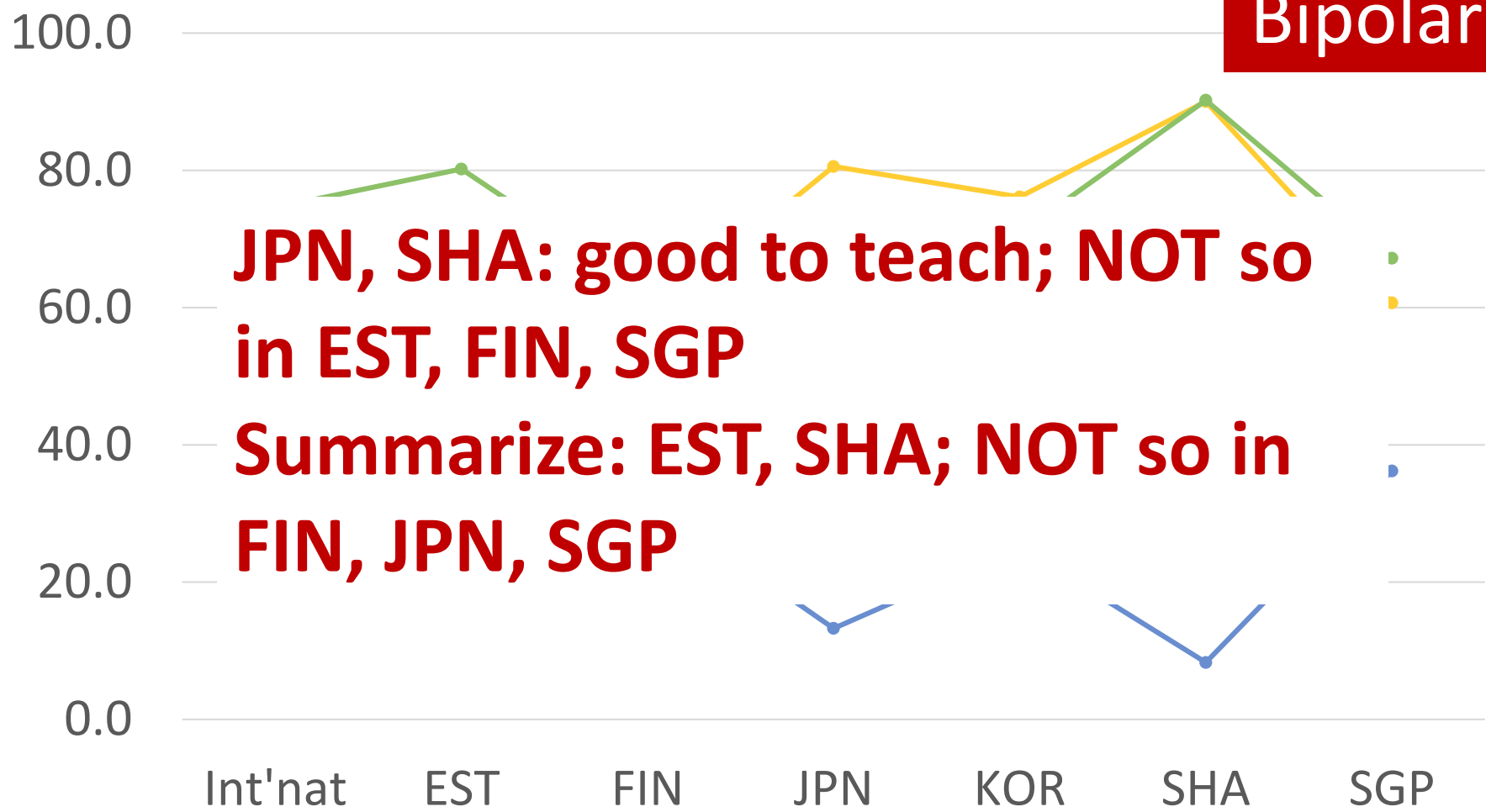
Bipolar: Gen Teaching



Team teach in JPN SGP (not KOR SHA)
Discuss development of students in JPN, KOR, SHA only, BUT v Low in FIN, EST; need more study

- JPN, SGP (not KOR, SHA): Team teach
- JPN, KOR, SHA discuss development of specific students; FIN, EST never

— Teach jointly team in same class Once a week or more
 — discuss learning development of specific students Never



JPN, SHA: good to teach; NOT so in EST, FIN, SGP

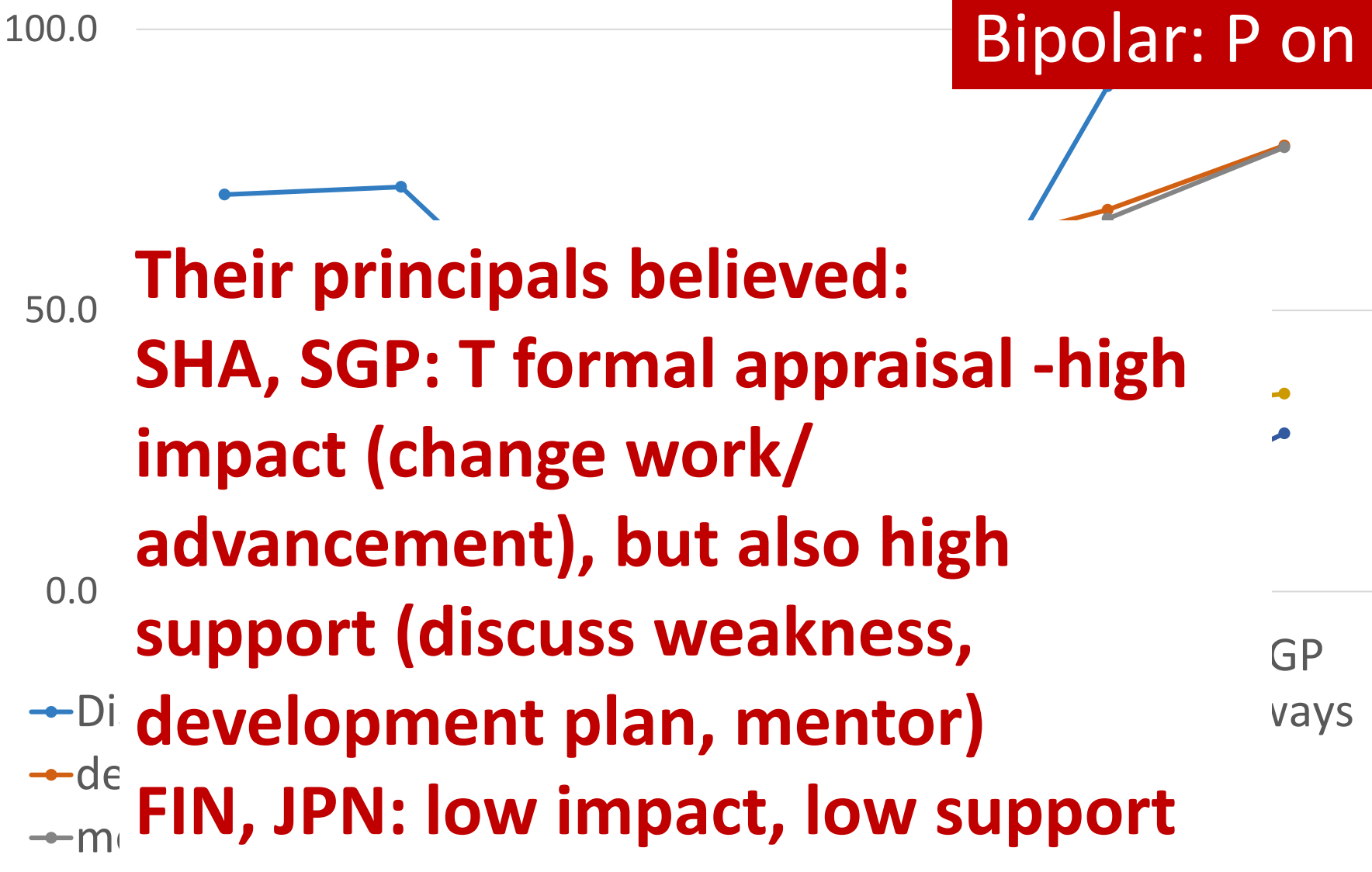
Summarize: EST, SHA; NOT so in FIN, JPN, SGP

- Students create pleasant learning atm, not disruptive in class: JPN, SHA; NOT so in EST, FIN, SGP
- EST, SHA summarize recently learned content; FIN, JPN, SGP v. low freq

— Students take care create pleasant learning atm Agree/S agree

— much disruptive noise in classrm Agree/S agree

— I summarize recently learned content Freq/nearly all lessons



Their principals believed:
SHA, SGP: T formal appraisal -high impact (change work/ advancement), but also high support (discuss weakness, development plan, mentor)

FIN, JPN: low impact, low support

- Their Principals believed:
- SHA, SGP: discuss my weakness, development plan, mentor, change work, change career advancement
- FIN, JPN: v. low

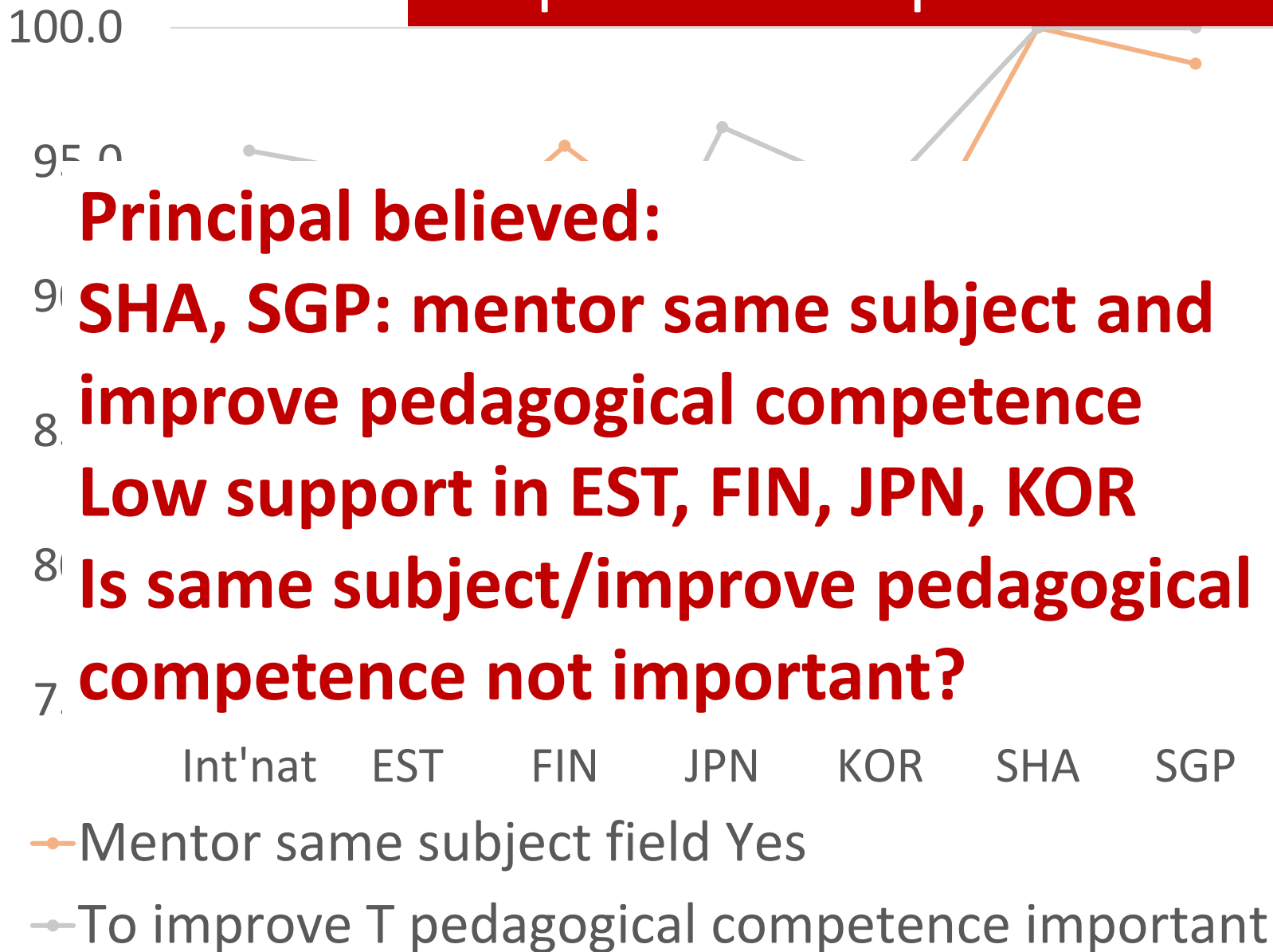
SHA, SGP: good culture of sharing success, low intimidation among students
Opposite in EST, FIN
Consistent /inconsistent impression of teaching environment → affect our teacher preparation???

- Their principals believed:
- SHA, SGP: culture of sharing success, low intimidation/ verbal abuse among students
- Opposite in EST, FIN

— culture to share success Agree/S agree

— Intimidation/verbal abuse among students Weekly/ Daily

Bipolar: Principal belief on T induction/Mentor



- Principals believed:
 - SHA, SGP: mentor same subject and most important to improve pedagogical competence
 - Not same subject: EST, JPN, KOR
 - SHA, SGP: important to improve pedagogical competence (not important: FIN, KOR)



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Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching

Paul A. Kirschner
*Educational Technology Expertise Center
Open University of the Netherlands
Research Centre Learning in Interaction
Utrecht University, The Netherlands*

John Sweller



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Journal of Educational Psychology
2011, Vol. 103, No. 1, 1–18

Does Discovery-Based Instruction Enhance Learning?

Louis Alfieri, Patricia J. Brooks, and
Naomi J. Aldrich
City University of New York

Harriet R. Tenenbaum
Kingston University

The findings suggest that unassisted discovery does not benefit learners, whereas feedback, worked examples, scaffolding, and elicited explanations do.

discovery under most conditions ($d = -0.38$, 95% CI $[-.44, -.31]$). In contrast, analyses of 360 comparisons revealed that outcomes were favorable for enhanced discovery when compared with other forms of instruction ($d = 0.30$, 95% CI $[.23, .36]$). The findings suggest that unassisted discovery does not benefit learners, whereas feedback, worked examples, scaffolding, and elicited explanations do.

Keywords: discovery learning, explicit instruction, scaffolding

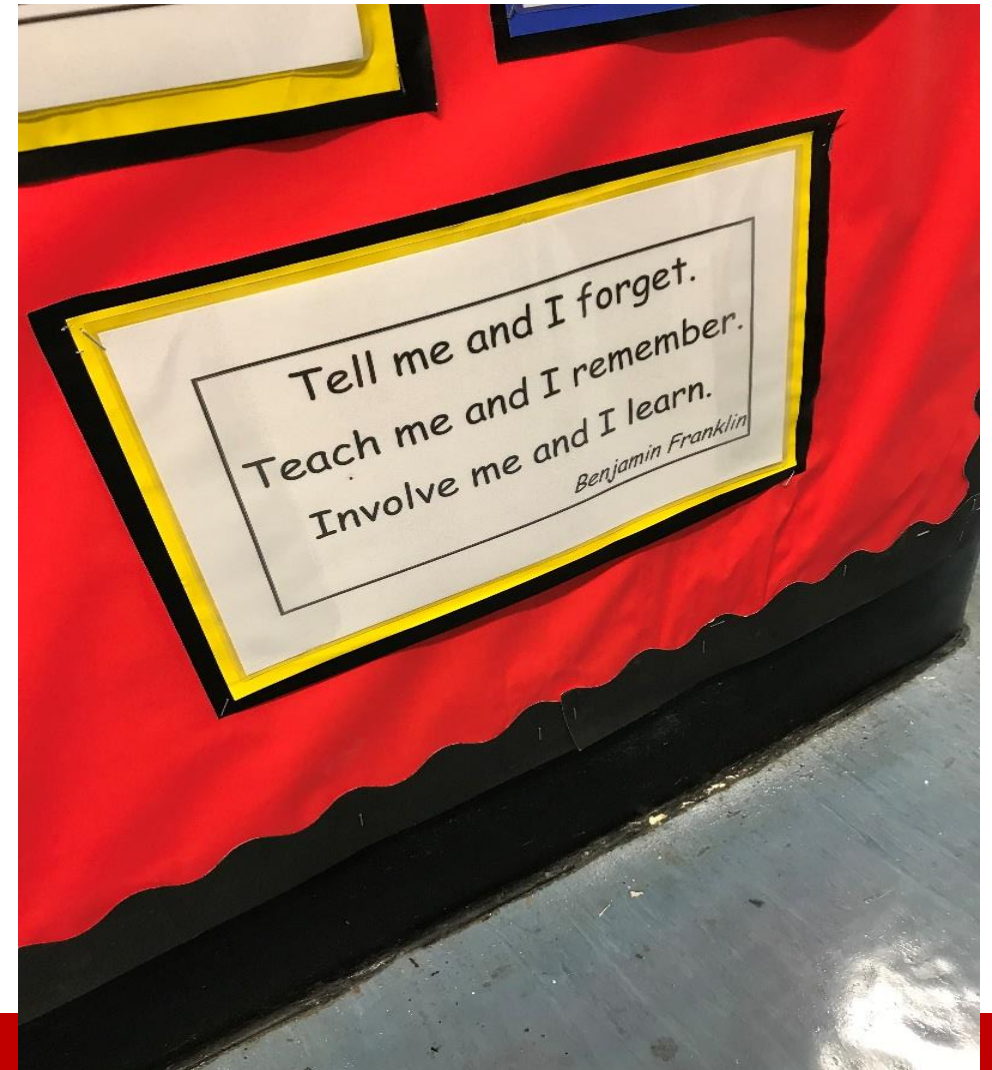
Supplemental materials: <http://dx.doi.org/10.1037/a0021017.supp>

III. Myths: perhaps we should know....

Current belief driven by

Recent (past several decades) beliefs:

- Students cannot recall most factual material after class
- Interest, values, cognitive skills likely to last longer if concepts /knowledge have acquired NOT by passively reading/listening, BUT through own mental efforts





III. Myths: perhaps we should know....

Discrepancies in View

- Explicit instruction → most efficient ?
- Constructivism → emphasize learners' motivation, provide guidance/feedback only when learners prompt thru inquiry
- Learn how to tie shoes (contradictory views)
 - Best if children can explore with hands-on because of their lack of experience
 - Best if directly taught because of their lack of experience



III. Myths: perhaps we should know....

Results of Meta-analyses

Meta-analyses (few hundred studies/comparison)

- More explicit instruction superior to unassisted discovery, particularly in verbal, social tasks, for adolescents (than for adults), and in all (tasks requiring invention, collaboration with naive peer)
- Worked examples (with feedback+ explanation) better than explicit instruction
- Enhanced discovery better (than all others) in physical motor skills, computer, verbal, social skills benefited more (than science, maths), for adults (than children)



III. Myths: perhaps we should know....

Challenges

- Bruner (1961) emphasized discovery while cautioned at least some base of knowledge in the domain in question
- Unassisted discovery not effective due to lack of structure
- Even with hand-on task may not understand the task
- Learners might have difficulty in holding all other variables constant while manipulating only one; novice learners cannot figure out how to use the provided materials



III. Myths: perhaps we should know....

Challenges

- Explicit teaching on how scientists go about uncovering causal factors; strengthened by activities to practice these skills in domains of interest, and discover knowledge in that domain
- Usefulness of worked examples over other forms of instruction; instructors should provide complete problem solution to study and practice --- superior because of limited capacity of working memory
- NOT lecture type, some degree of guidance + practice using these skills



III. Myths: perhaps we should know....

Challenges

- Discovery: learner construct their own understanding/ content – should yield greater learning, comprehension, retention
- However, majority of tasks are simple
- Cognitive load theory: discovery involves extensive search through problem-solving space
- taxes learners' limited working memory + lack of metacognitive skills to monitor own process of attention → frequently does not lead to learning



III. Myths: perhaps we should know....

Implications for Teaching

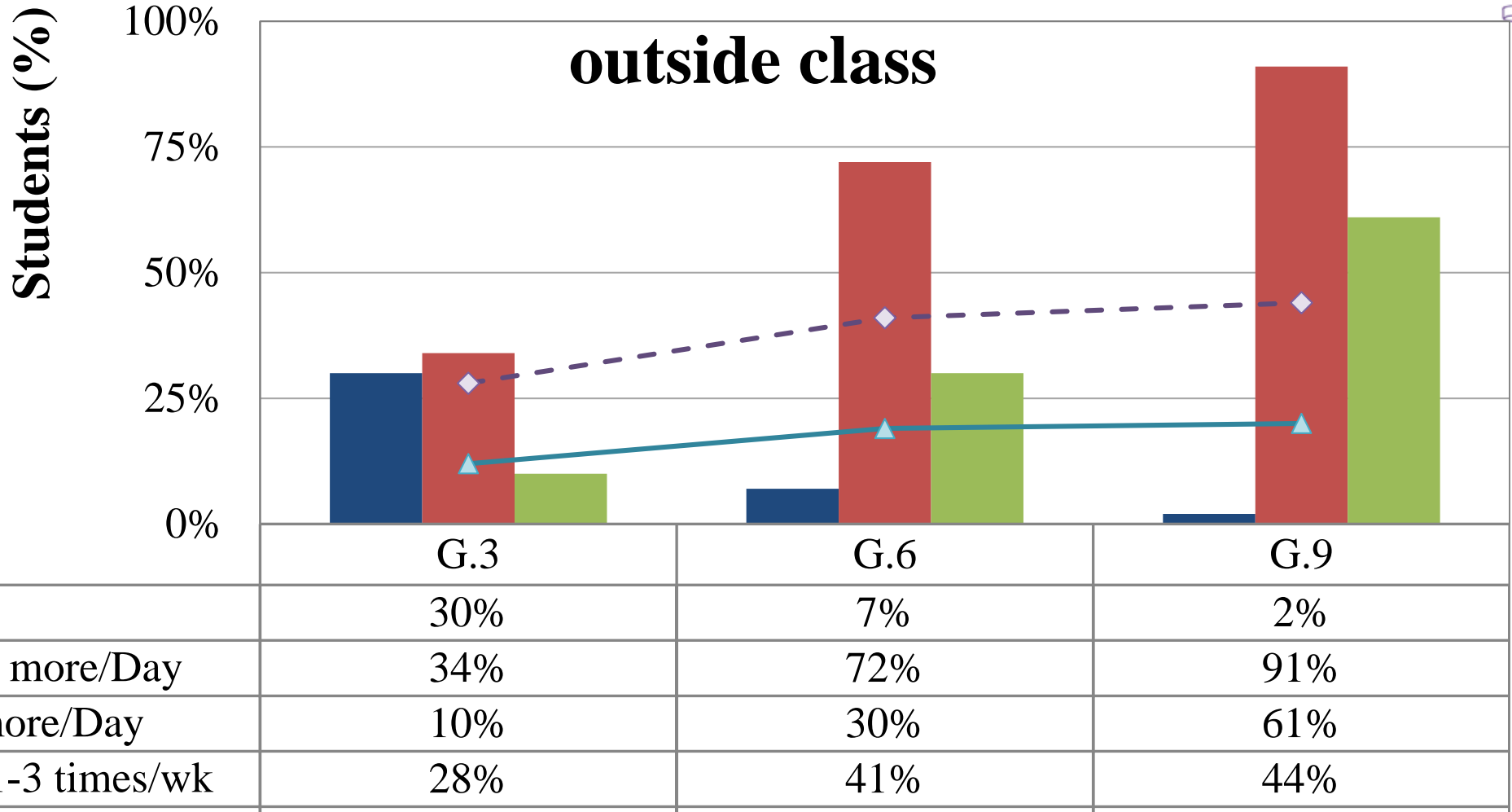
- Unassisted discovery --- does not benefit learning
- Direct instruction is better (than unassisted discovery), provide worked examples or timely feedback is preferable
- In-class individual feedback might be impossible, feedback on homework assignments seems possible
- feedback, scaffolding, activities requiring learners to explain (elicited explanation)



III. Myths: perhaps we should know....

Make Sure

- Activity and constructivist learning might be disconnected
 - hands-on activities \neq constructivism (should engage in constructing ideas to elaborate, predict, reflect)
 - passive methods \neq passing learning (working memory and executive functioning abilities liberated for more creative process, inferences, integration, reorganization)



- In class: worse with low achievers
- Outside class: high/low similar problems

- G.6 problem more serious, without more complaints
- Low achievers, low SES, more complaints

Change from 2006 through 2012 and 2015 in students' access to the Internet at home internet%

- A link to the Internet (PISA 2006)
- ◆ A link to the Internet (PISA 2012)
- ▲ A link to the Internet (PISA 2015)

▲ A link to the Internet (PISA 2015)

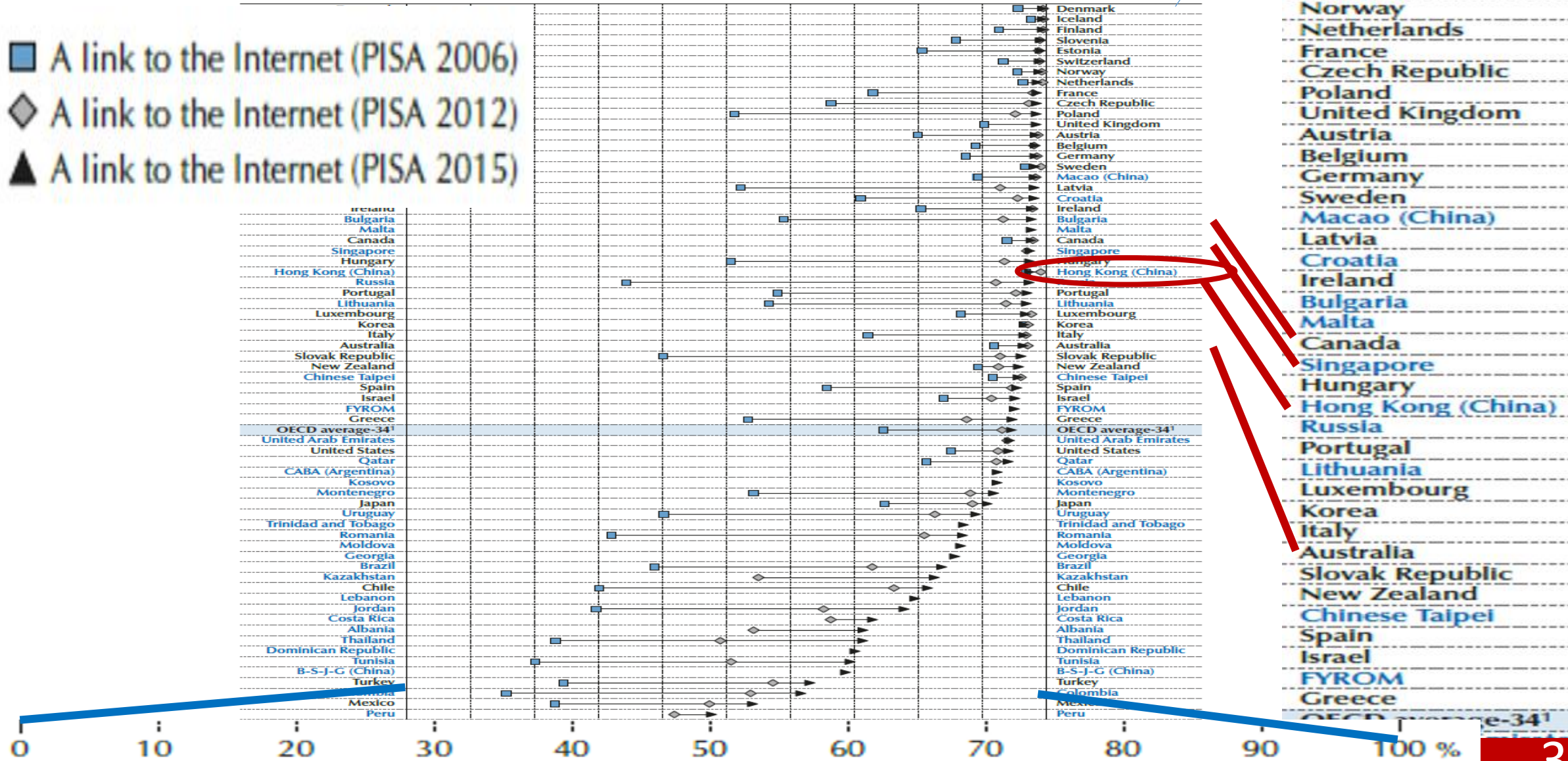


Figure III.13.2 ■ Change between 2012 and 2015 in the share of children who used the Internet when they were six years old or younger

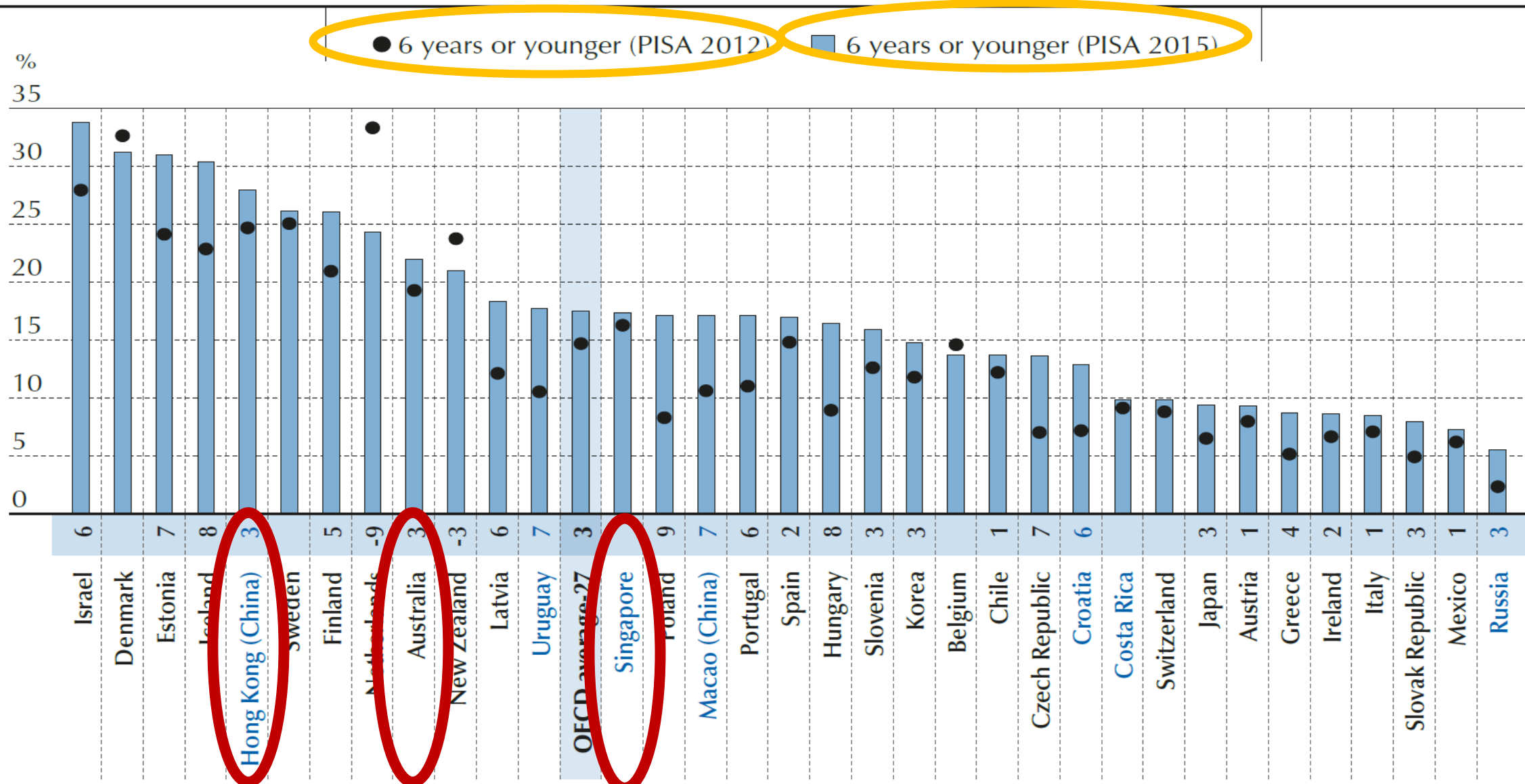
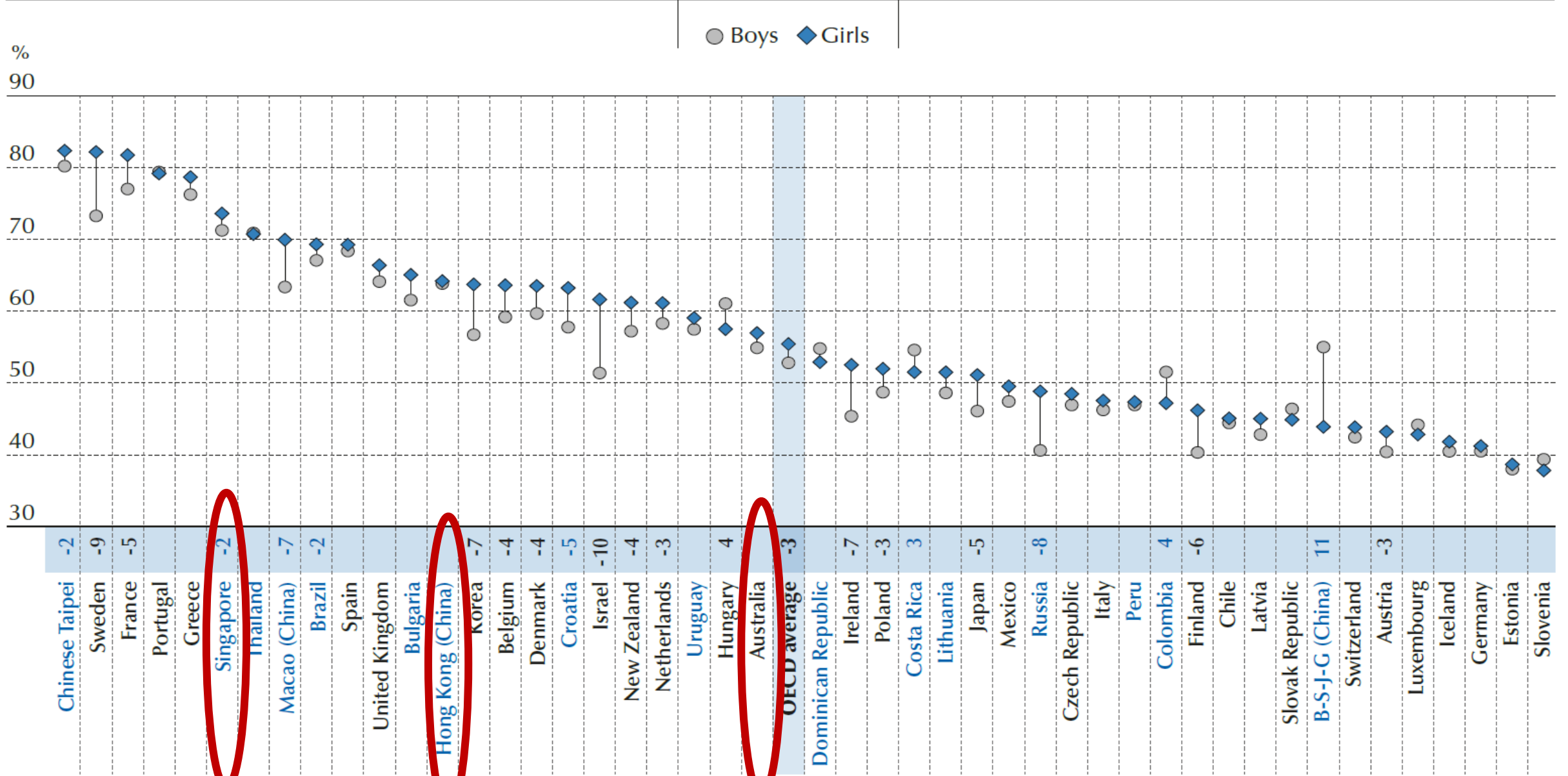


Figure III.13.6 ■ **Feeling bad if not connected to the Internet, by gender**

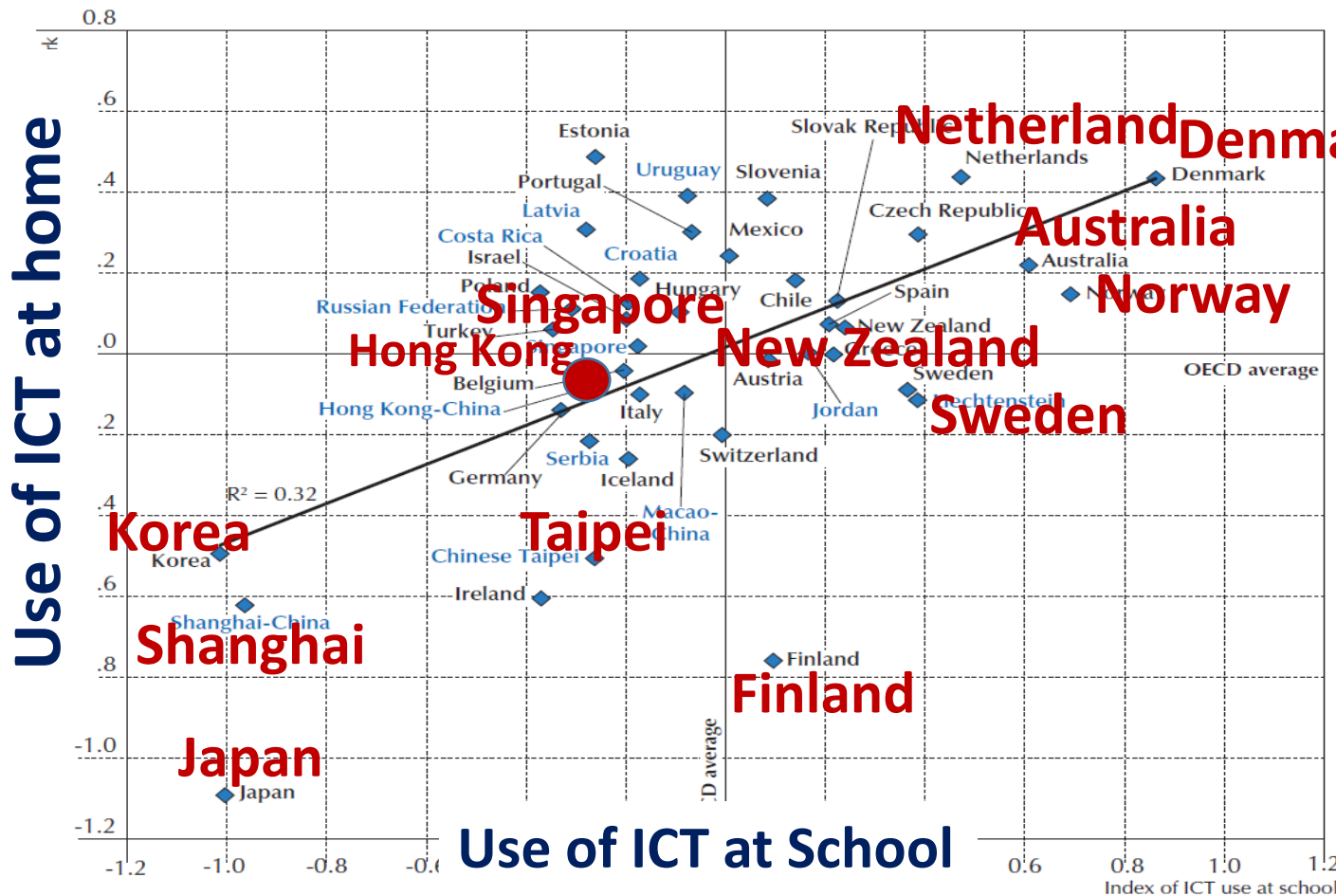
Percentage of students who reported "agree" or "strongly agree" **不上網失落%**





III. Myths: Use of IT in School, out of school

Relationship between use of ICT outside of school for schoolwork and use of ICT at school



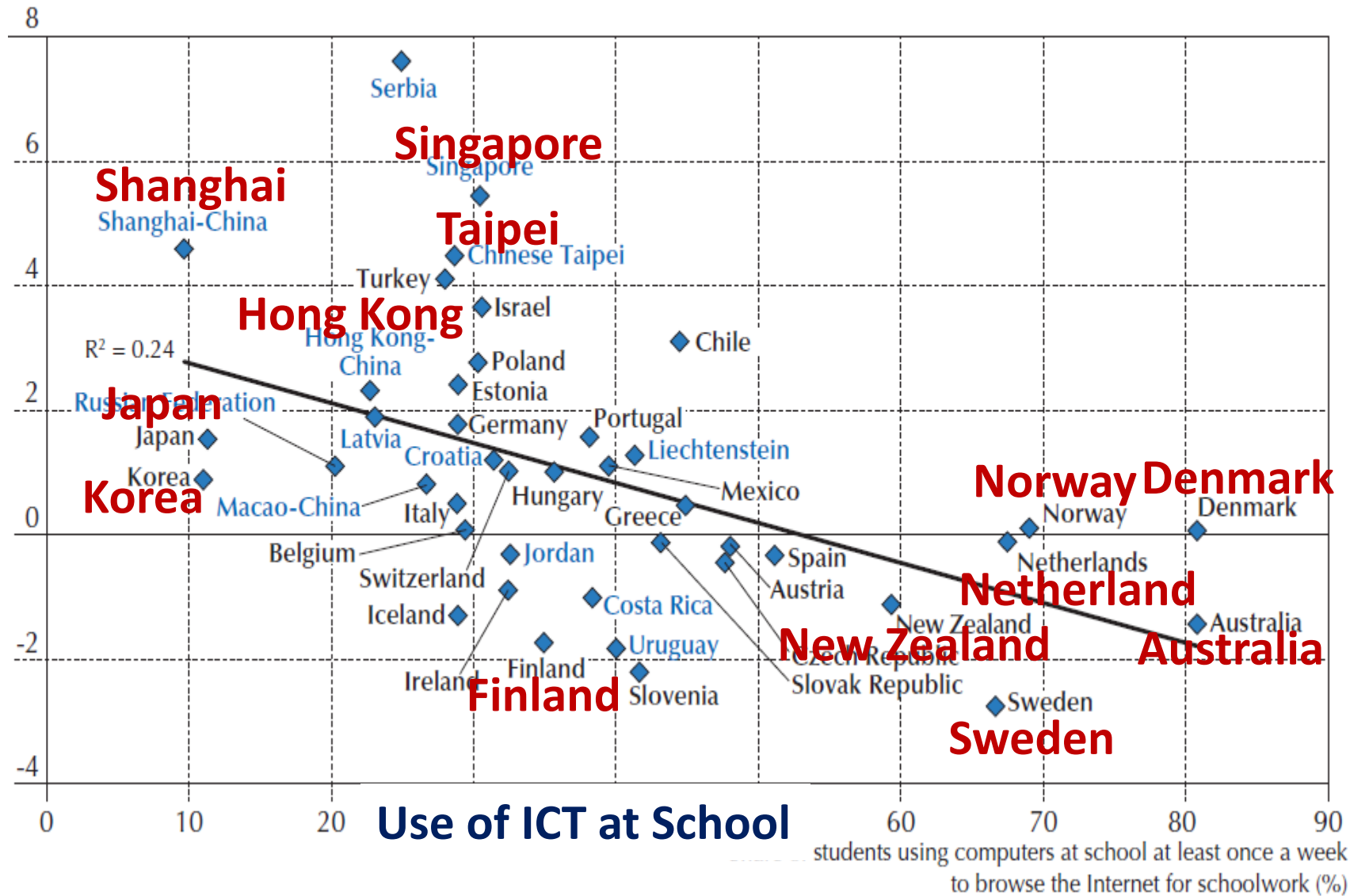
- More use in School --
- More use at Home

com>

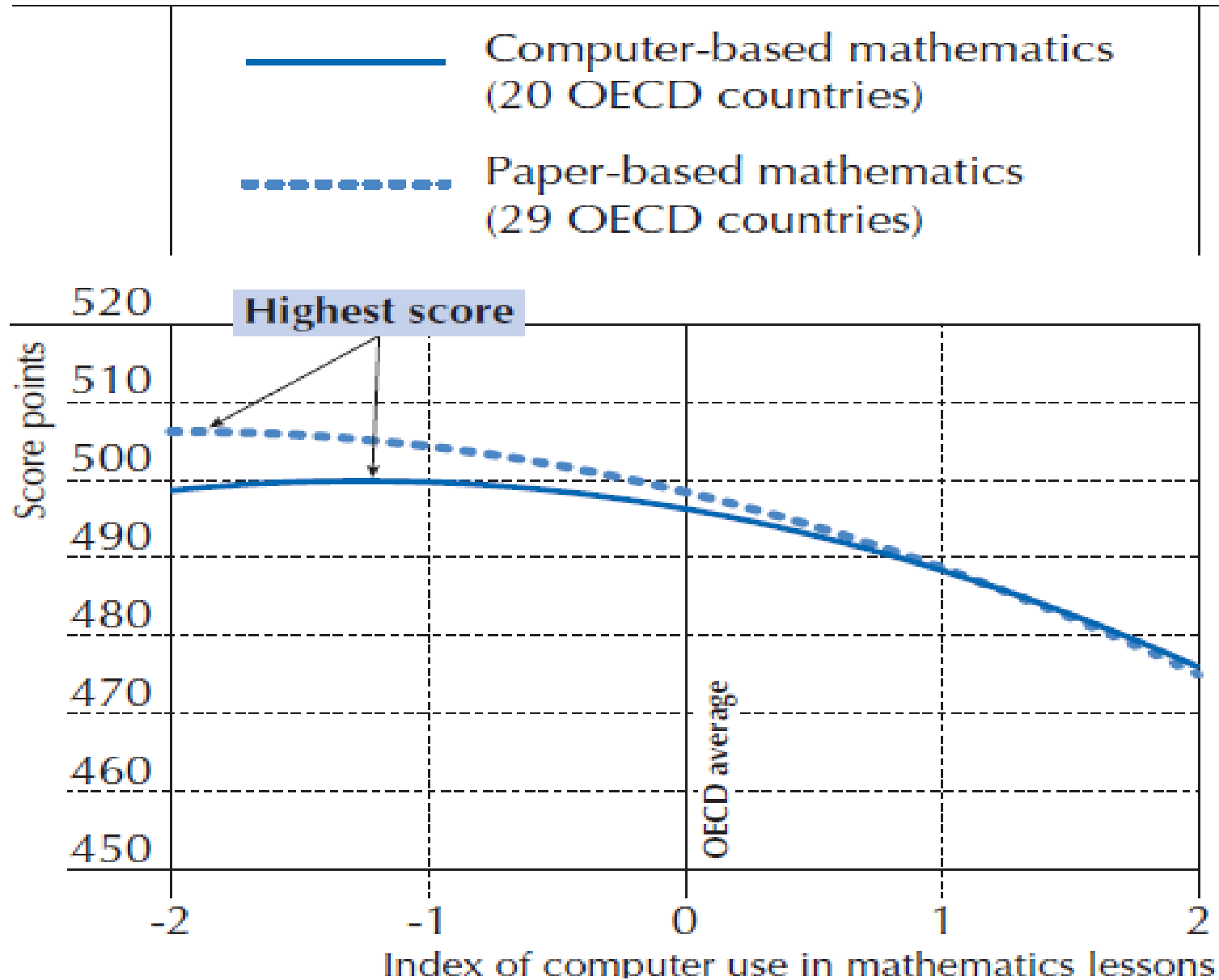


Trends in reading performance and proportion of students who frequently browse the Internet for schoolwork at school

Change in Score 2012 - 2000



- More Use of Computer → Academic Results Dropped more from 2000-2012



- More Use of Computer → Academic Results Dropped more from 2000-2012
- ICT No use OR previous use of ICT was ineffective / harmful



III. Anyone trying out iPad in class /Project learning and gave them up? -- UCL Academy (school) – sponsored by UCL, visited in Oct 2018



Robin Street





- Huge Discrepancies to Public/General Perception
- Need More Clarification/Studies

Without Data, You're Just
another Person with an
opinion – W. Edwards
Deming

