

Aligning Research on Pedagogies vis-à-vis 21st Century Literacies



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ALLANIC DICTUM 1



**EVERY TEACHER IS
A LITERACY TEACHER**



ALLANIC DICTUM 2



LITERACY TEACHERS AS PROBLEM-SOLVERS



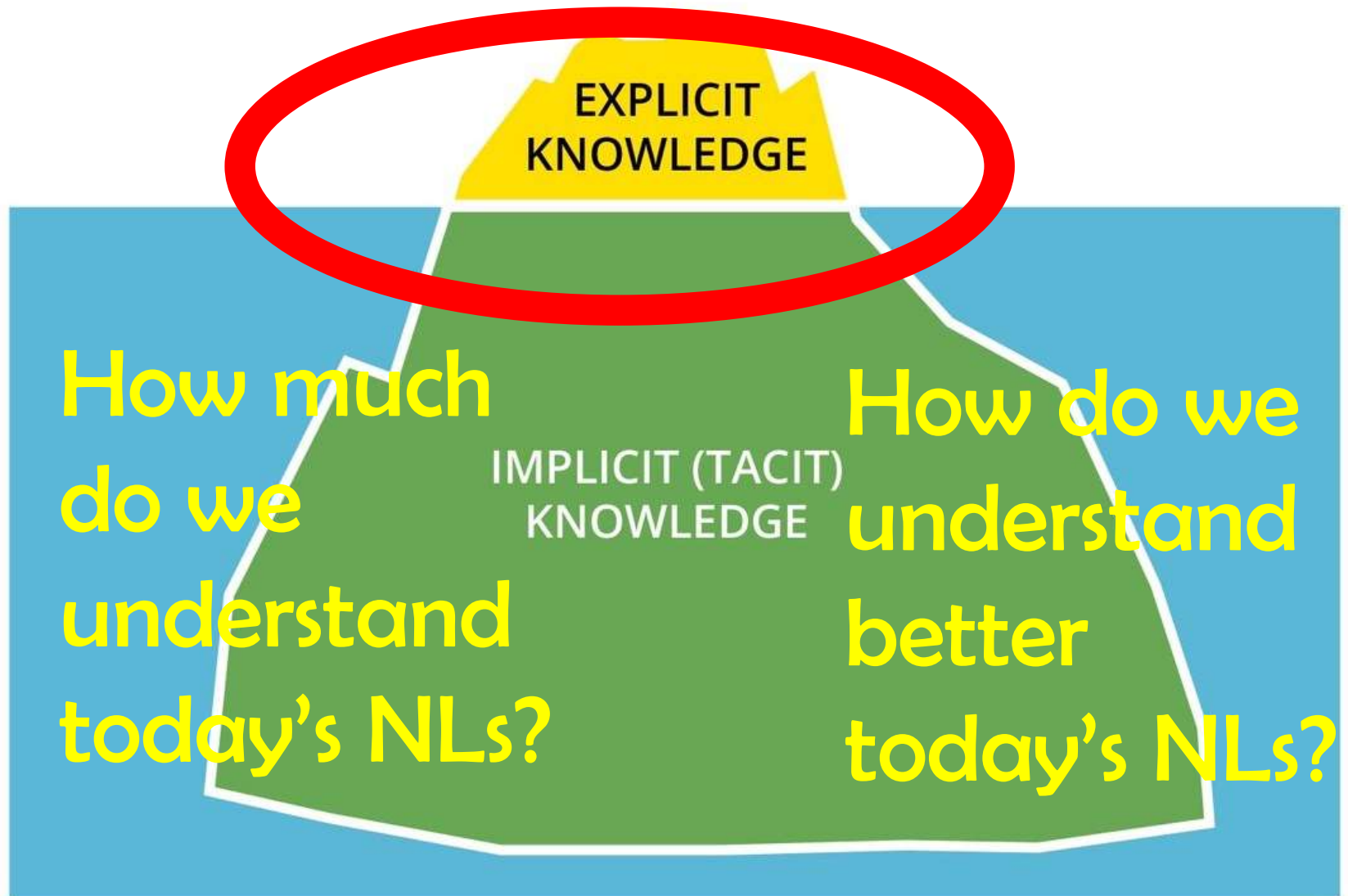


ALLANIC DICTUM 3

LITERACY TEACHERS AS PROBLEM-POSERS



THE TIP OF THE ICEBERG METAPHOR



TOP INTERNET USERS IN THE WORLD

Worldwide impact

▶ **2 billion**

The number of websites

World population

▶ **4.1 billion**

The number of internet users (as of December 2018)



▶ **49**

The percentage of internet users in the world who are in Asia

Top 2 countries in terms of internet users

India
>500 million

China
>800 million

Source: Hosting Facts

2B Websites

4.1B Users

49% Asia



TOP 20 INTERNET USERS IN THE WORLD



China 829M

India 560M

USA 292M

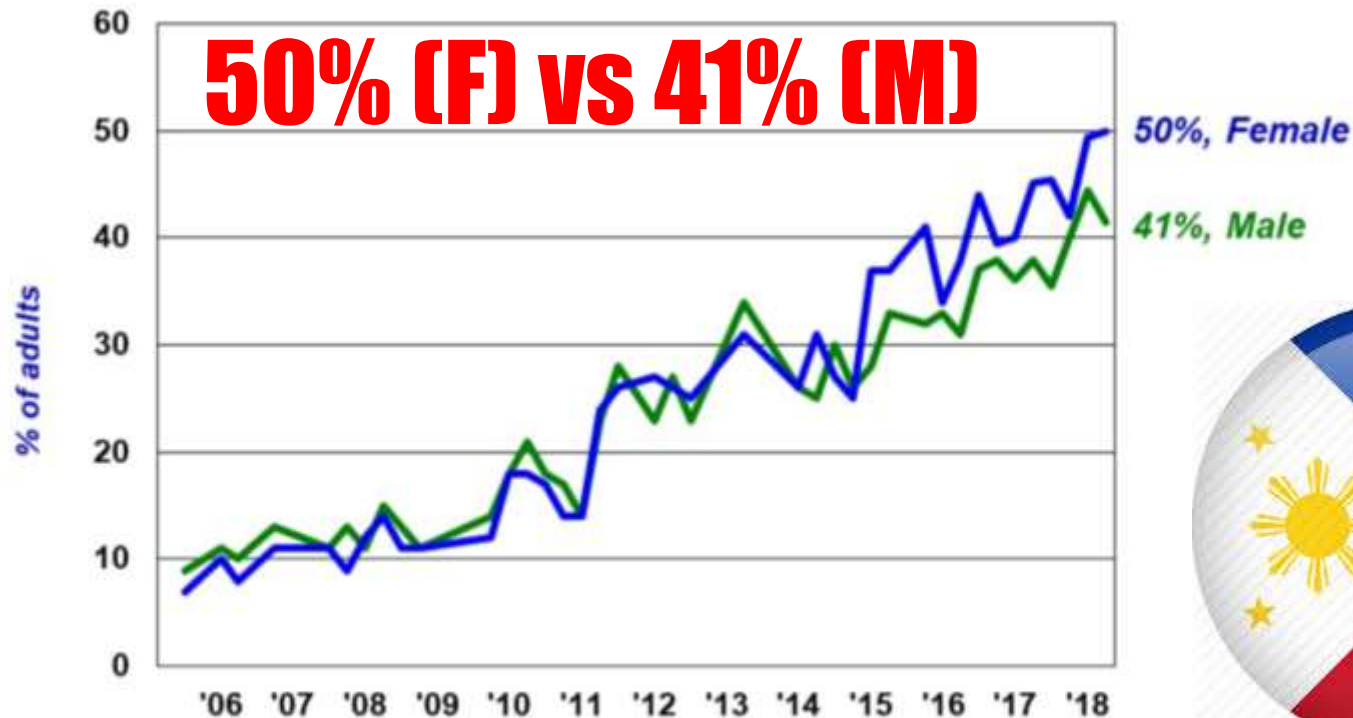
PH 67M

Vietnam 64M

UK 63M

THE 2019 SWS SURVEY

% OF INTERNET USERS: **BY SEX**, JUN 2006 TO MAR 2019

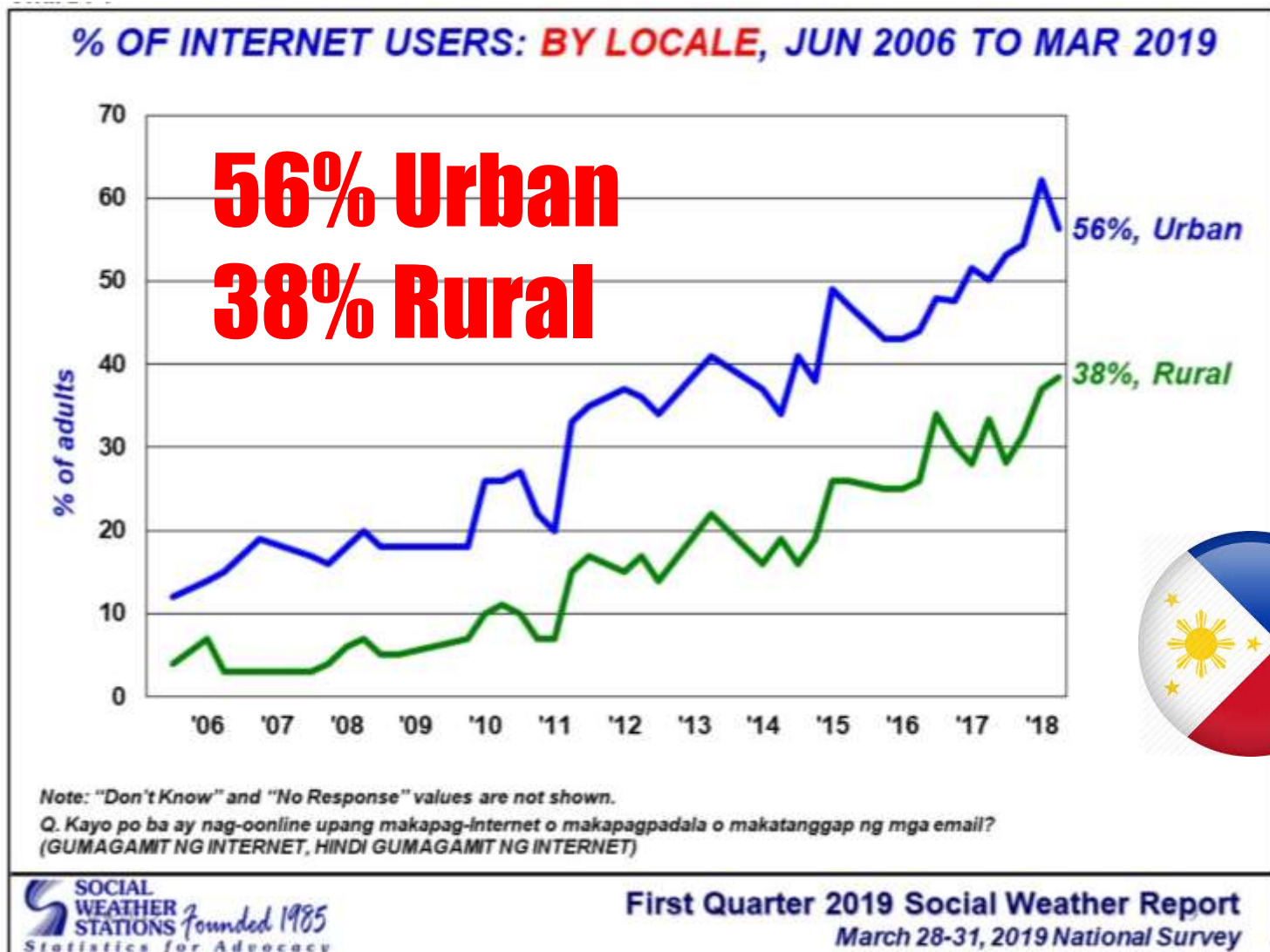


Note: "Don't Know" and "No Response" values are not shown.

Q. Kayo po ba ay nag-online upang makapag-Internet o makapagpadala o makatanggap ng mga email?
(GUMAGAMIT NG INTERNET, HINDI GUMAGAMIT NG INTERNET)

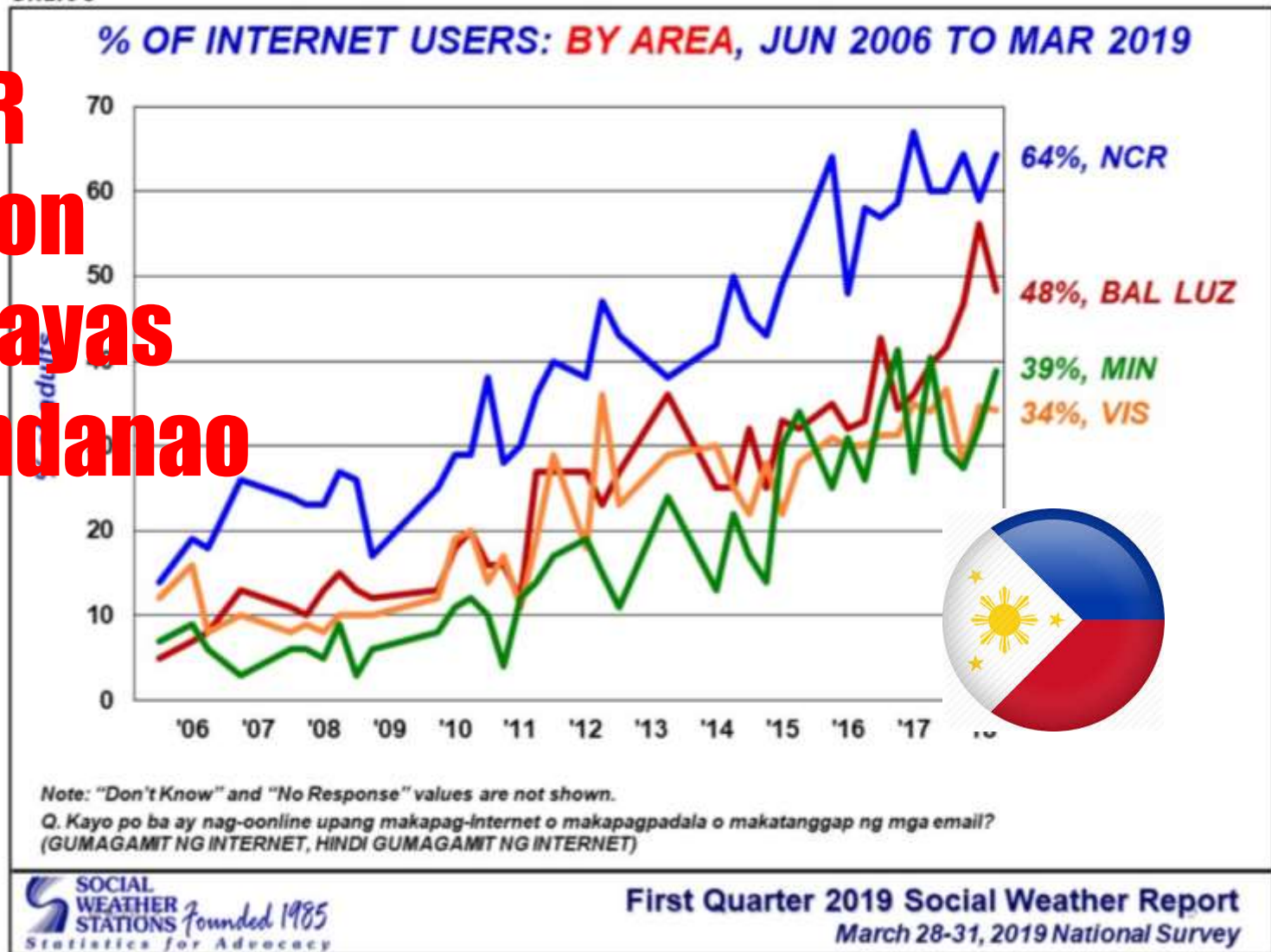


THE 2019 SWS SURVEY



THE 2019 SWS SURVEY

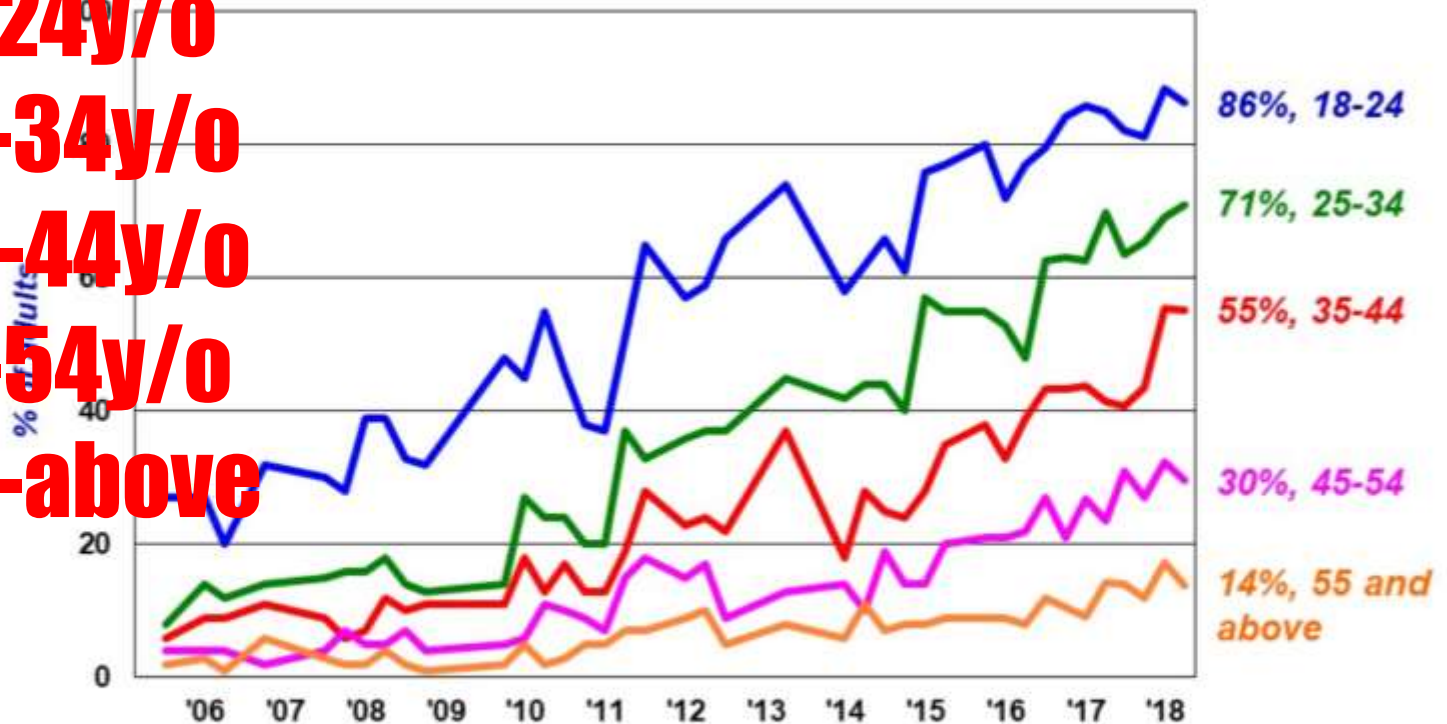
64% NCR
48% Luzon
39% Visayas
34% Mindanao



THE 2019 SWS SURVEY

86% 18-24y/o
71% 25-34y/o
55% 35-44y/o
30%, 45-54y/o
14% 55-above

% OF INTERNET USERS: BY AGE GROUP, JUN 2006 TO MAR 2019



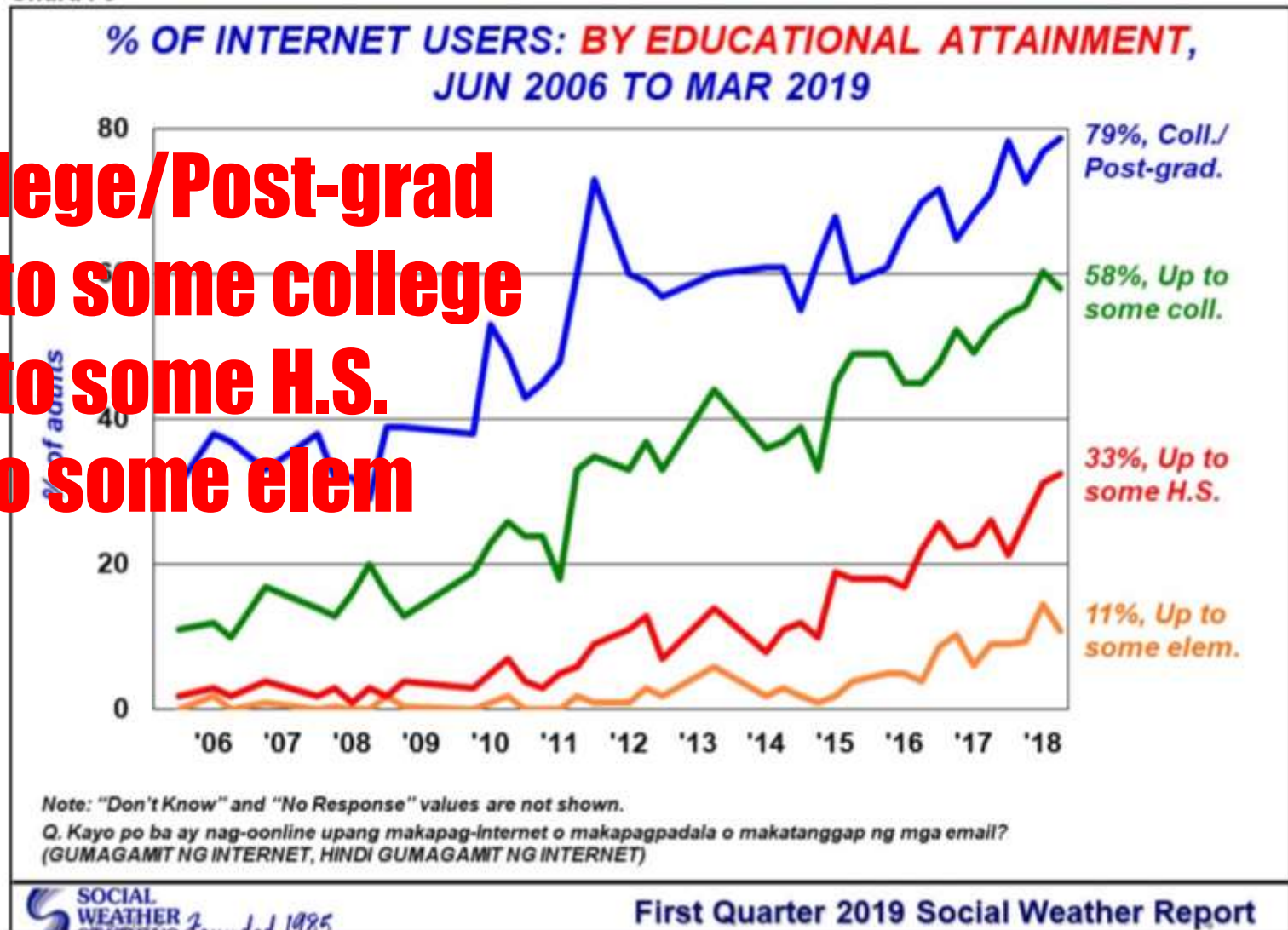
Note: "Don't Know" and "No Response" values are not shown.

Q. Kayo po ba ay nag-online upang makapag-Internet o makapagpadala o makatanggap ng mga email?
(GUMAGAMIT NG INTERNET, HINDI GUMAGAMIT NG INTERNET)



THE 2019 SWS SURVEY

79% College/Post-grad
58% up to some college
33% up to some H.S.
11% up to some elem





Aligning
Research on Pedagogies
vis-à-vis 21st Century Literacies



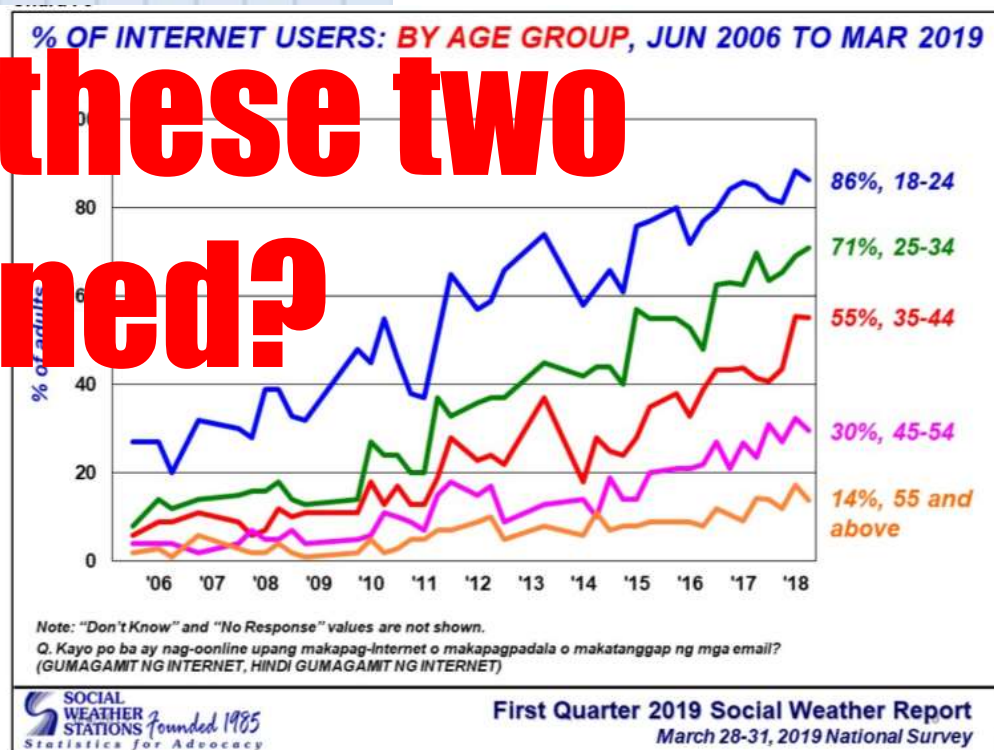
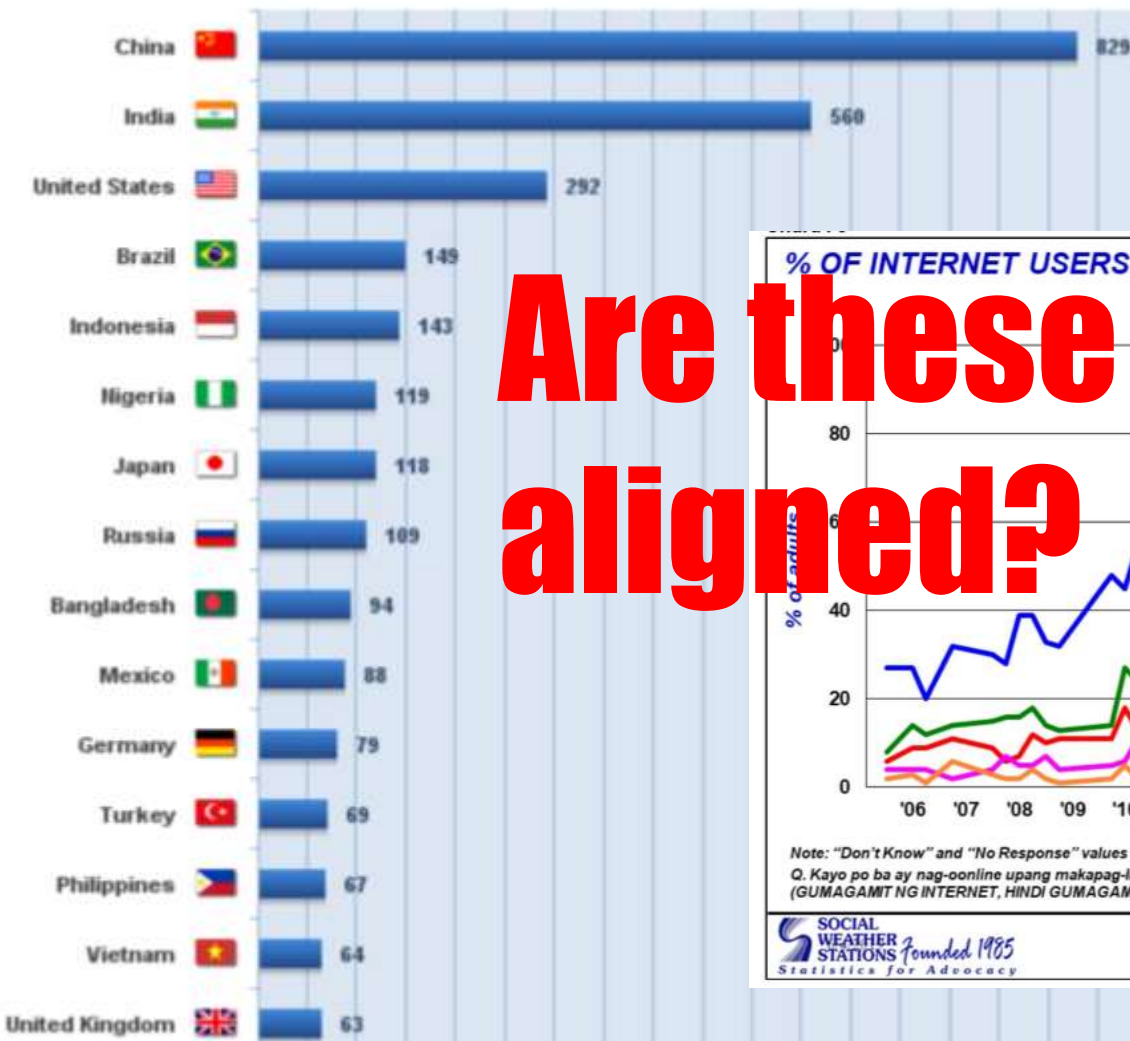
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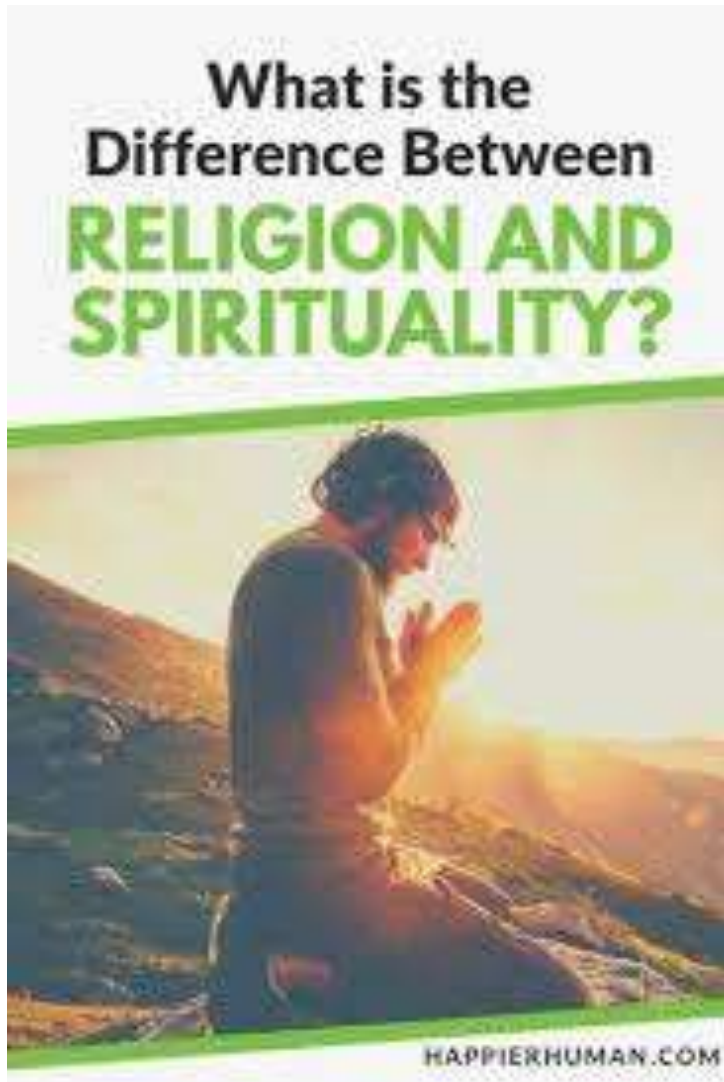
(v) to place in a line or **arrange**
so as to be parallel or straight

THE GLOBAL AND LOCAL PICTURE

Are these two
aligned?



RELIGIOSITY VERSUS SPIRITUALITY



**Are these
two aligned?**

ALLANIC DICTUM 1



**EVERY TEACHER IS
A LITERACY TEACHER**



Literacy is a product of learning.

Is literacy a means or an end?

Do new literacies lead to better school achievement?

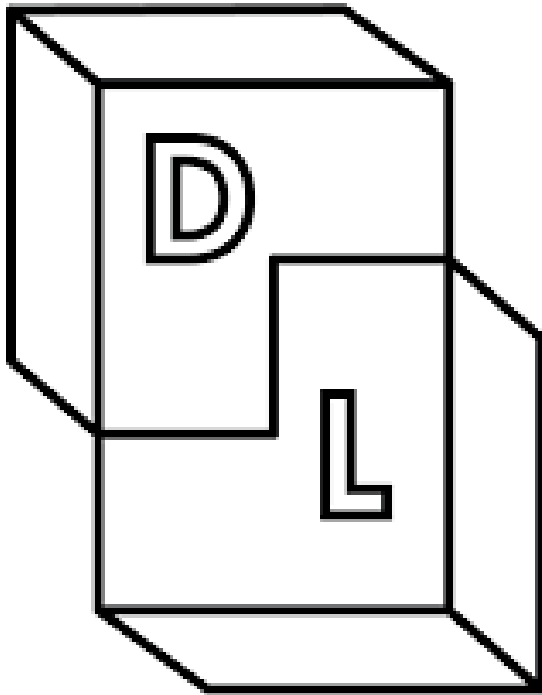


Literacy Education as a Playing field



**Old
Literacies**

**New
Literacies**



Literacy skills for the twenty – first century are skills that **enable participation in the new communities** emerging within a **networked society**.

(Jeckins et al, 2006)

Literacy skills facilitate the exchange of information between diverse communities and the ability to **move easily across different media platforms and social networks.**

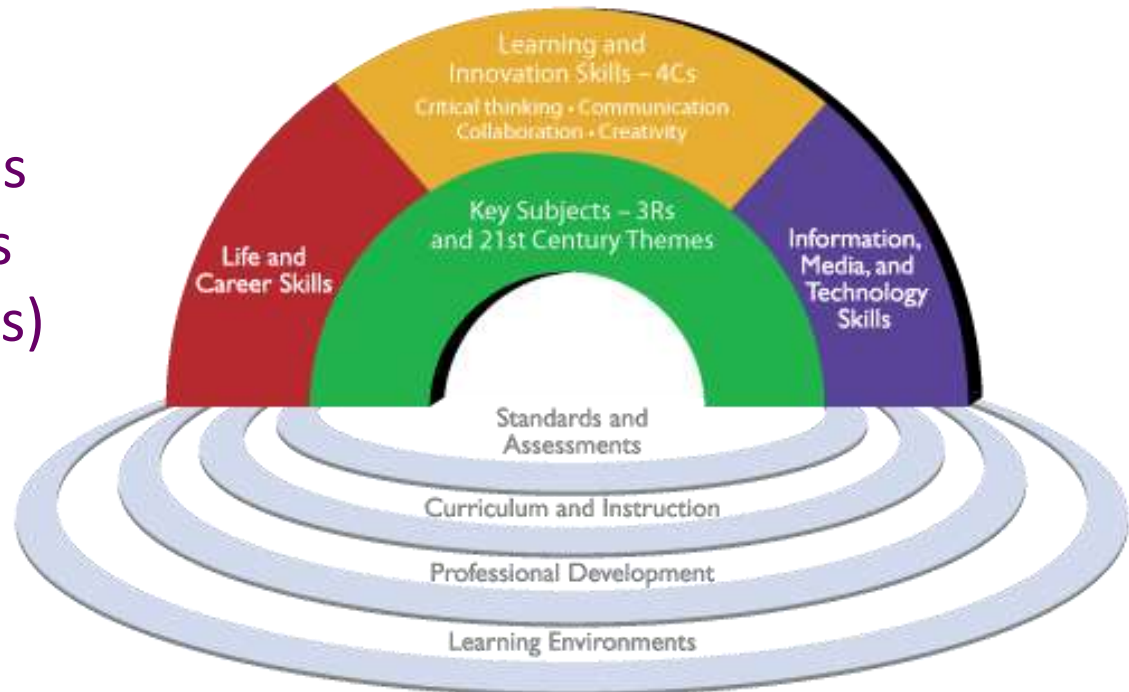


(Jeckins et al, 2006)

P21 Framework for 21st Century Learning

Basic Literacy
Information, Media
and Technology Skills
Life and Career Skills
Innovation Skills (4Cs)
**Critical Thinking,
Communication,
Collaboration,
Creativity**

P21 Framework for 21st Century Learning
21st Century Student Outcomes and Support Systems



ALLANIC QUESTION

What constitutes literacy
education as a
problem space?
problematic space?



LITERACY EDUCATION AS A PROBLEM SPACE

what



Old Literacies

New Literacies



LITERACY EDUCATION AS A PROBLEMATIC SPACE

Why & How

←

Old Literacies

→

New Literacies

MY PLENARY ARGUMENT

Literacy Ed as a Mindful Field



Old literacies



New literacies

ALLANIC DICTUM 2



LITERACY TEACHERS AS PROBLEM-SOLVERS





WHAT IS A
PROBLEM?

What should be

■ **What is**

PROBLEM



WHAT IS A PROBLEM?

- **90% Literacy Rate**
89% Achieved LR

ANY PROBLEM



WHAT IS A PROBLEM?

- **90% Literacy Rate**
49% Achieved LR

ANY PROBLEM

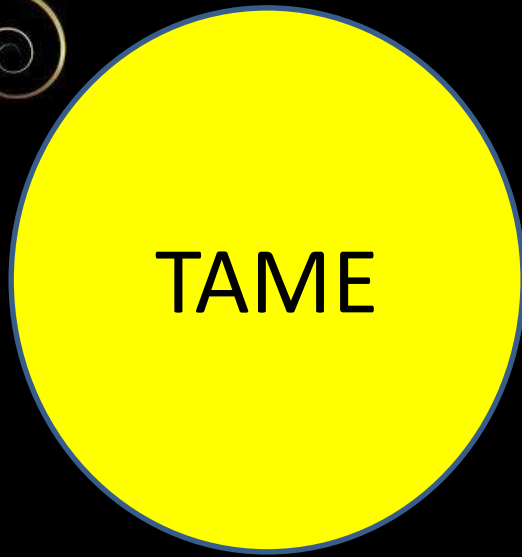


Problem Typologies

TAME

MESSY

WICKED



Convergent,
well-defined,
solvable,
consensus
on solution





Complex, interdependent
problems,
non-linear, divergent, lacking
agreement, differing
solutions

MESSY





MESSY

No real “solution”
hard to understand,
illogical, non-linear



IN THE AGE OF NEW LITERACIES

Literacy Education
Research as

problem space &

problematic space?

TYPOLOGIES OF EVIDENCE



Evidence *about*
Practice

Evidence *in*
Practice

Lewis, J & Caldwell, B. (2005). Evidence-Based Leadership. *The Educational Forum*, 69, 182-191.

EVIDENCE ABOUT PRACTICE

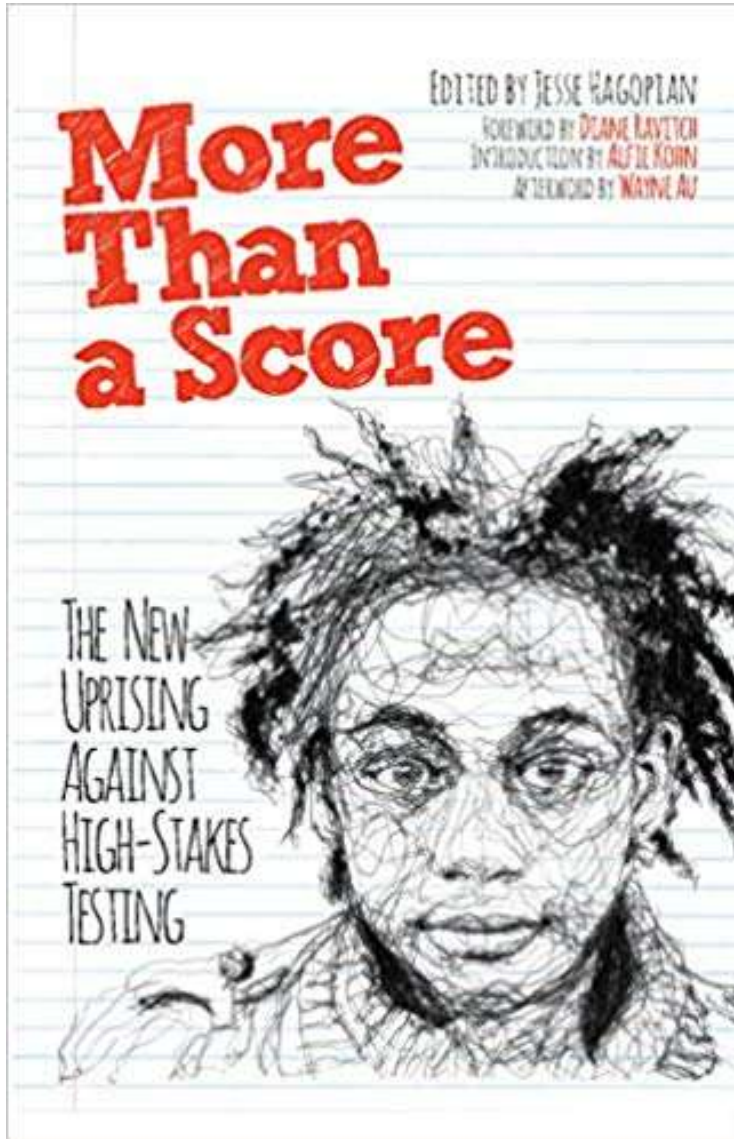


is meant to inform
and appease
politicians and the
public



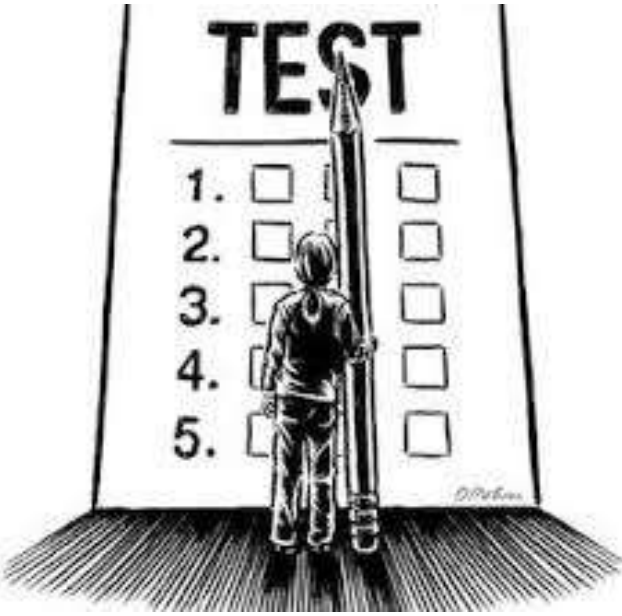
Lewis, J & Caldwell, B. (2005). Evidence-Based Leadership. *The Educational Forum*, 69, 182-191.

AGREE OR DISAGREE



**In a country
where **high-
stakes testing**
exists, student
achievement
really matters.**

HIGH STAKES TEST

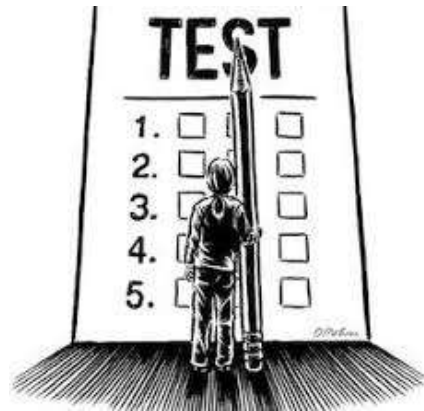


any test used to make **important decisions about students**, educators, schools, or districts, most commonly for the **purpose of accountability.**

HIGH STAKES TEST

NCEE

National College Entrance
Examinations



NEAT and NSAT

National Elementary
Achievement Test

National Secondary
Achievement Test

NCAE

National Career Assessment
Examination

At the international level

PIRLS

Progress In International Reading Literacy Study



International Mathematics Achievement

East Asian Countries Top Achievers at Fourth Grade in Mathematics

TIMSS 2015 Mathematics has achievement results for **49** countries at the fourth grade.

Singapore **618** Hong Kong SAR **615**
Korea **608**
Chinese Taipei **597** Japan **593**

23

The gap between the East Asian countries and the next highest country was 23 in 2015, unchanged from 2011.

Singapore 618
Hong Kong 615
Korea 608
Chines Taipei 597
Japan 593

Northern Ireland **570**
Russian Federation **564**
Norway **549** Ireland **547** England **546**
Belgium-Flemish **546** Kazakhstan **544**
Portugal **541** United States **539** Denmark **539**
Lithuania **535** Finland **535** Poland **535**
Netherlands **530** Hungary **529** Czech Republic **528**
Bulgaria **524** Cyprus **523** Germany **522** Slovenia **520**
Sweden **519** Serbia **518** Australia **517** Canada **511** Italy **507**
Spain **505** Croatia **502** Slovak Republic **498** New Zealand **491**
France **488** Turkey **483** Georgia **463** Chile **459** United Arab Emirates **452**
Bahrain **451** Qatar **439** Iran **431** Oman **425** Indonesia **397**
Jordan **388** Saudi Arabia **383** Morocco **377** South Africa **376** Kuwait **353**

Please see Exhibit 1.3 for statistically significant differences.

TIMSS 2015

Singapore
Korea
Japan
Russian Fed
Hong Kong

590
589
569
567
557

**Singapore and Korea
the Top Achievers at
Fourth Grade in
Science. Japan,
Russian Federation,
and Hong Kong SAR
also in the Top Five.**

SCIENCE-FOURTH GRADE

**TIMSS
2015**

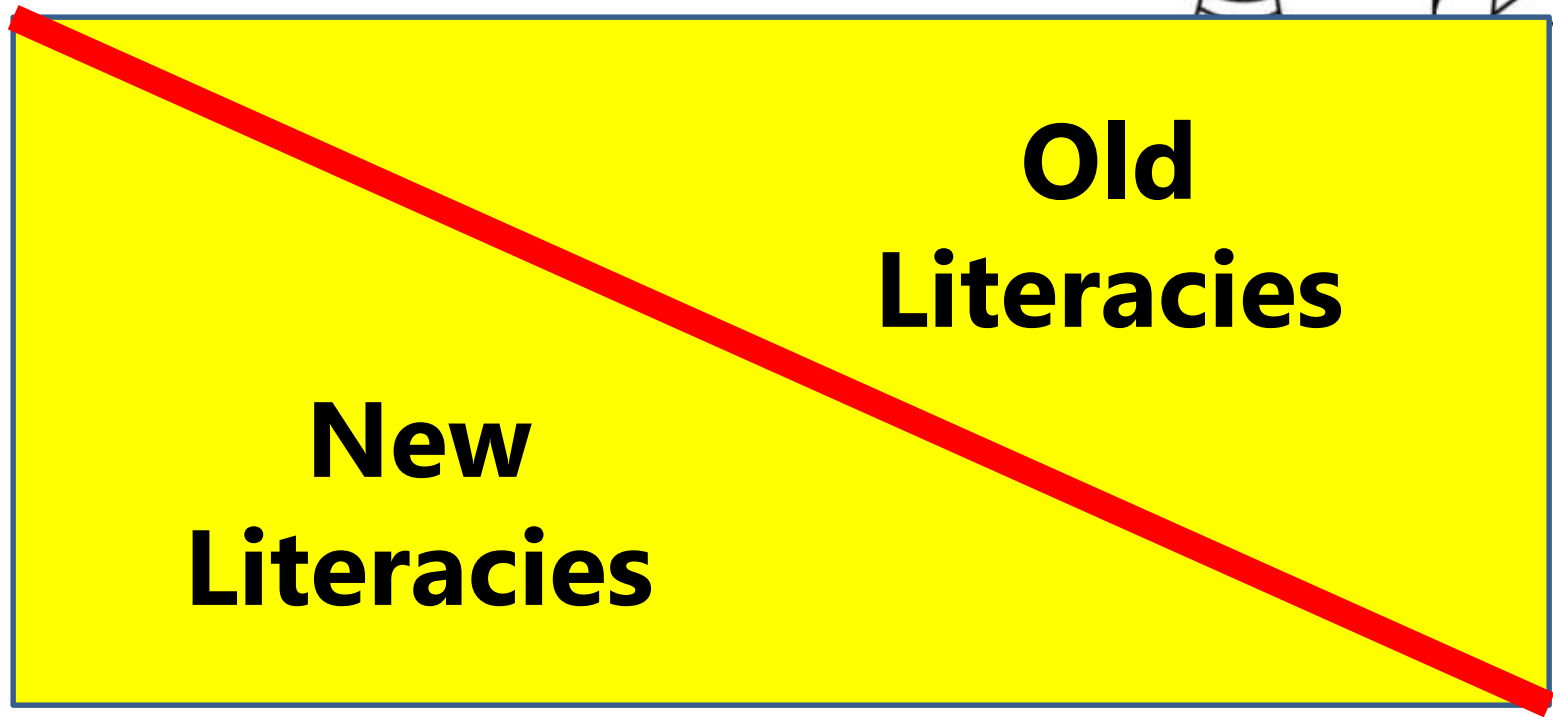
International Science Achievement

TIMSS 2015 Science has
achievement results for **47**
countries at the fourth grade.



Please see Exhibit 1.3 for statistically significant differences.

Is Singapore's good performance a product of



❖ Philippine Average TIMMS Scores (Trends in International Mathematics and Science Study)

		23	25
		23	25
Grade IV			
Science			
Mathematics		43	46
HS II			
Science		34	38
Mathematics			
Advanced Mathematics		10	10
Source: TIMMS, 20			

MATHS

1  Shanghai

2  Singapore

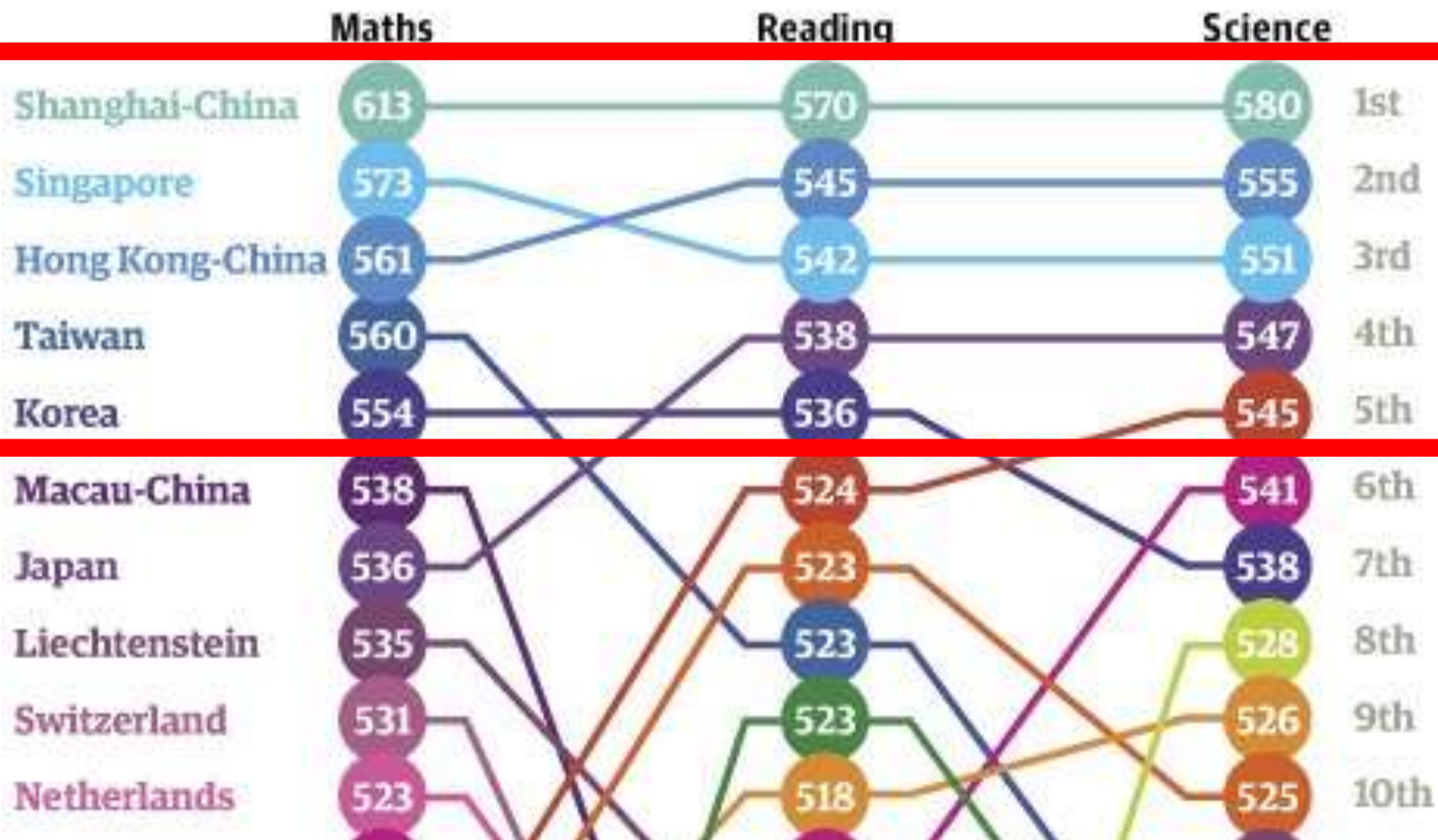
3  Hong Kong

4  South Korea

5  Taiwan

28  UK





HOW BRITISH YOUNGSTERS COMPARE

READING

- 1  Shanghai
- 2  South Korea
- 3  Finland
- 4  Hong Kong
- 5  Singapore

25  UK

MATHS

- 1  Shanghai
- 2  Singapore
- 3  Hong Kong
- 4  South Korea
- 5  Taiwan

28  UK

SCIENCE

- 1  Shanghai
- 2  Finland
- 3  Hong Kong
- 4  Singapore
- 5  Japan

16  UK

Source: OECD PISA 2009

25th 28th

16th



PISA



EVIDENCE ABOUT PRACTICE



is meant to inform
and appease
politicians and the
public



Lewis, J & Caldwell, B. (2005). Evidence-Based Leadership. *The Educational Forum*, 69, 182-191.

EVIDENCE IN PRACTICE



to improve
teaching and
learning quality

Lewis, J & Caldwell, B. (2005). Evidence-Based Leadership. The Educational Forum, 69, 182-191.

MATHS

1  Shanghai

2  Singapore

3  Hong Kong

4  South Korea

5  Taiwan

28  UK



MARCH 13, 2014

INTERNATIONAL BUSINESS TIMES

UK Recruits 60 Shanghai Math Teachers To Help Improve Numeracy Skills Of Students

By *Michelle FlorCruz*
on March 13 2014 2:12 PM

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in 4

g+

more



Students in China taking the grueling gaokao college entrance exam Beijing Cream

INTERNATIONAL BUSINESS TIMES

MARCH 13, 2014

**UK Recruits 60 Shanghai Math Teachers To Help
Improve Numeracy Skills Of Students**

UK Recruits 60 Shanghai Math Teachers To Help Improve Numeracy Skills Of Students

If you can't beat 'em, hire 'em! In an attempt to replicate the math success of Shanghai's teenagers, consistently at the top in international rankings, England will be importing teachers from the Chinese megacity to help raise local standards.

If you can't beat 'em, hire 'em! In an attempt to replicate the math success of Shanghai's teenagers, consistently at the top in international rankings, England will be importing teachers from the Chinese megacity to help raise local standards.

Do you approve of UK's decision?

**UK Recruits 60 Shanghai Math Teachers To Help
Improve Numeracy Skills Of Students**



**INTERNATIONAL
BUSINESS TIMES**

MARCH 13, 2014

MICHAEL SADLER'S WHOLESALE APPROPRIATION

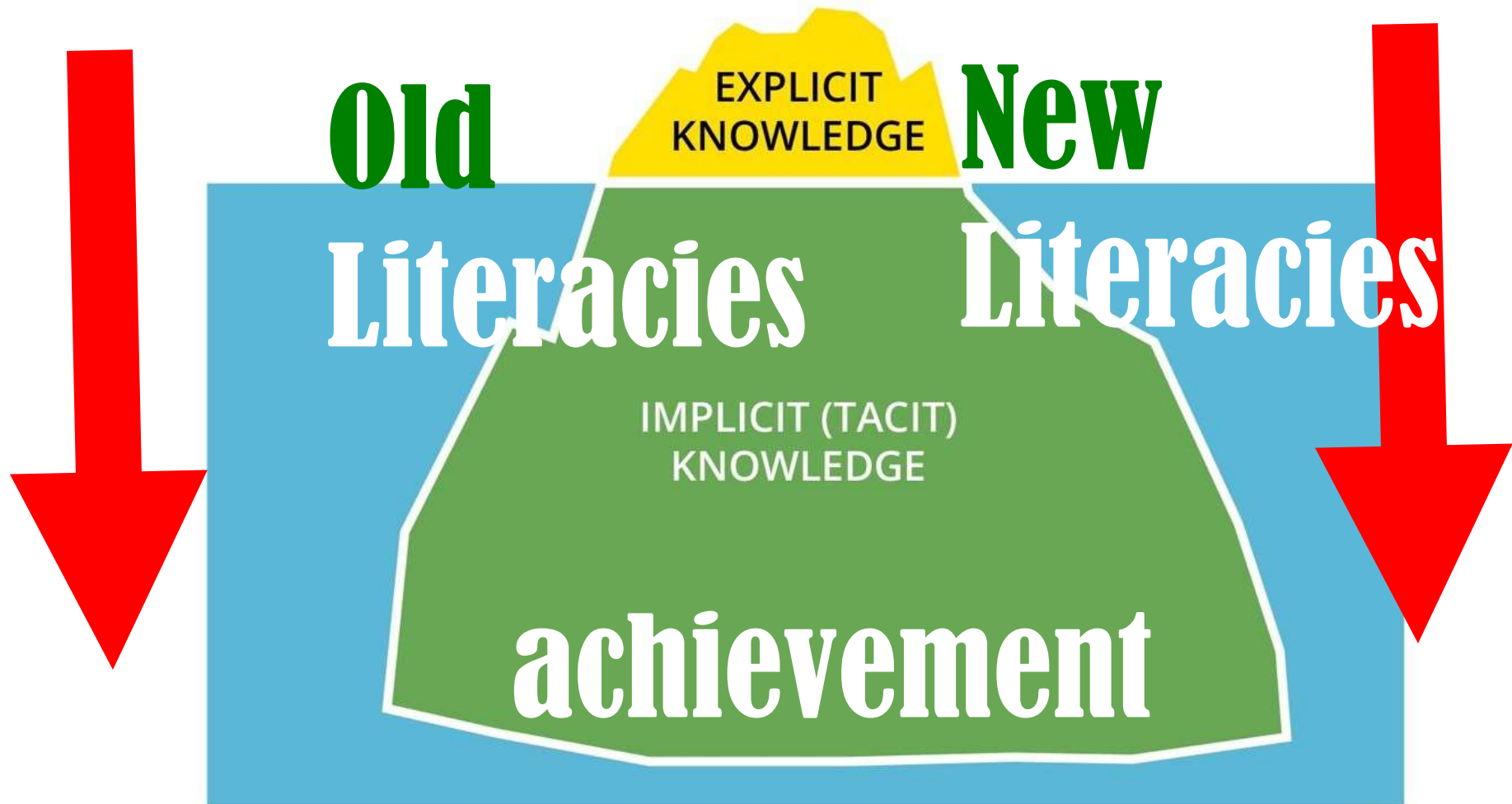
Transplanting
thinking and
practice: Is it
possible?



HAVE YOU EXPERIENCED



RESEARCH AS SEARCH & RESCUE OPERATION





ALLANIC DICTUM 3

LITERACY TEACHERS AS PROBLEM-POSERS



Educational research that operates in a **problem-posing rather than a problem-solving mode** is...itself a form of education as it tries to change mindsets and common perceptions, tries to **expose hidden assumptions**, and tries to **engage in ongoing conversations about what is valuable and worthwhile** in education and society more generally...in order to show that perhaps there's something else that should be asked for or aimed at.

Biesta, G, O Filippakou, E Wainwright, and D Aldridge. 2019. "Why educational research should not just solve problems, but should cause them as well." British Educational Research Journal 45 (1): 1–4.

2019



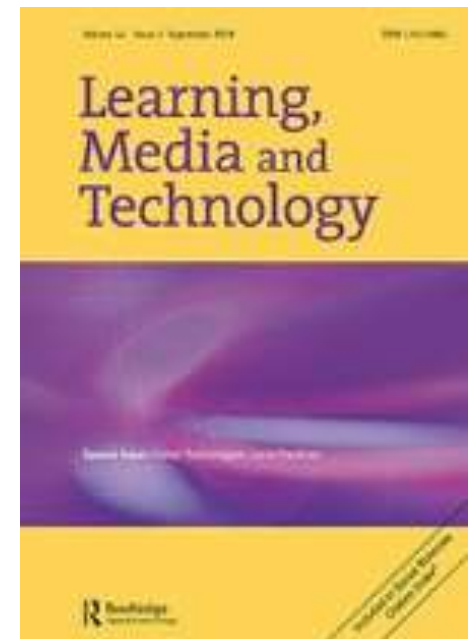


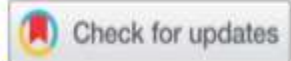
Student *Facebook* groups as a third space: between social life and schoolwork

Janus Aaen* and Christian Dalsgaard



Centre for Teaching Development and Digital Media, Aarhus University, Aarhus N 8200, Denmark

(Received 30 June 2015; accepted 18 October 2015)





Are educational preschool apps designed to teach? An analysis of the app market

Melissa N. Callaghan  and Stephanie M. Reich 

School of Education, University of California, Irvine, CA, USA



VIEWPOINT



Children using *Facebook*: teachers' discursive constructions of childhood

Sandra Chang-Kredl and Stephanie Kozak

Department of Education, Concordia University, Montreal, Quebec, Canada



Learning, Media and Technology, 2015
<http://dx.doi.org/10.1080/17439884.2015.1064955>



New literacies practices of teenage *Twitter* users

Benjamin Gleason* 

Educational Psychology and Educational Technology Department, Michigan State University, East Lansing, MI, USA

(Received 16 February 2015; accepted 17 June 2015)

RESEARCH ARTICLE



Thinking in hashtags: exploring teenagers' new literacies practices on twitter

Benjamin Gleason 

School of Education, Iowa State University, Ames, Iowa



❖ Philippine Average TIMMS Scores (Trends in International Mathematics and Science Study)

Philippine Average TIMSS Scores				
	Score	International Average	Rank	Participating Countries
2003 Results				
Grade IV				
Science	332	489	23	25
Mathematics	358	495	23	25
HS II				
Science	377	473	43	46
Mathematics	378	466	34	38
2008 Results				
Advanced Mathematics	355	500	10	10
Source: TIMMS, 2003 and 2008				

CONVENTIONAL MINDSET

- Children live too far from school
- Parents are too poor
- Children are bored
- Children don't speak the language of the school



SHELDON SHAEFER



ARNEC

Asia-Pacific Regional Network
for Early Childhood

Why do children fail?

*Children live too far
from school*



*The school is too
far from the
children*

Shaeffer, 2014

Why do children fail?

*Parents are too
poor*

*The school is too
expensive*



Shaeffer, 2014

Why do children fail?

*Children are
bored*



*The school is
boring*

Shaeffer, 2014

Why do children fail?

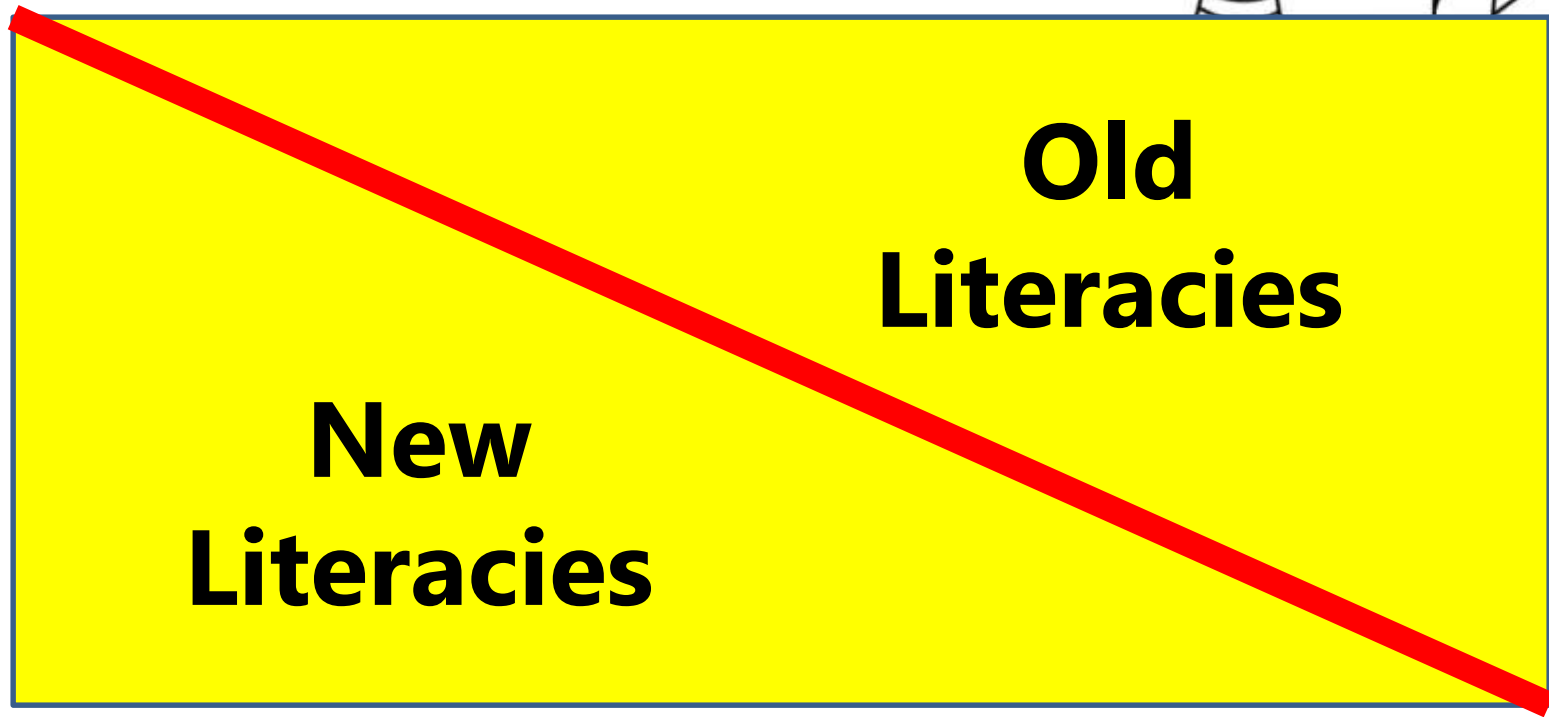
*Children don't
speak the language
of the school*



*The school does
not speak the
language of the
child*

Shaeffer, 2014

The misalignment in Literacy Education

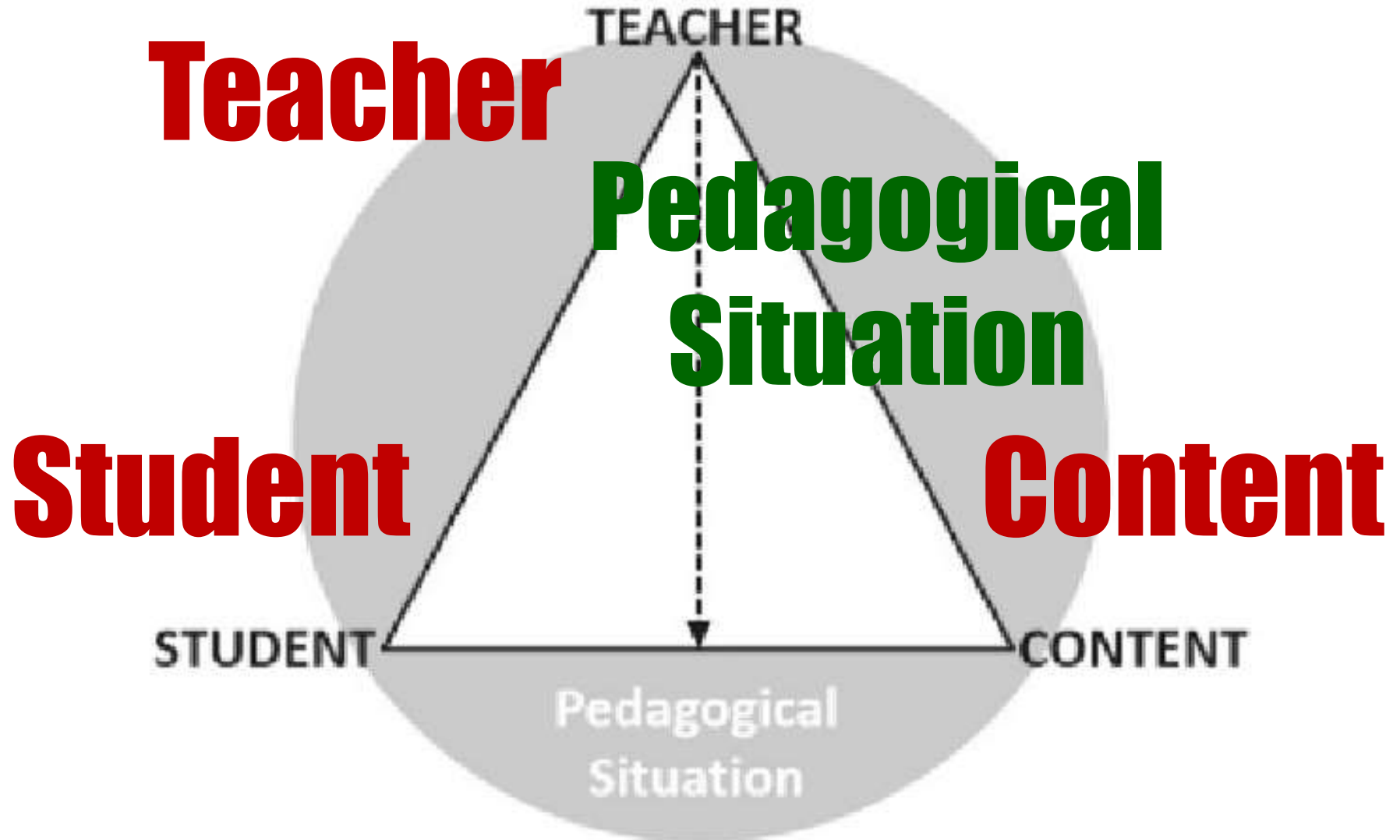


DO YOU REMEMBER

TOWER OF BABEL SYNDROME



Pedagogical Triangle





THE TEACHER IS A

**a key determinant of
students' experiences
and outcomes of
schooling'**

(Rowe, 2003)

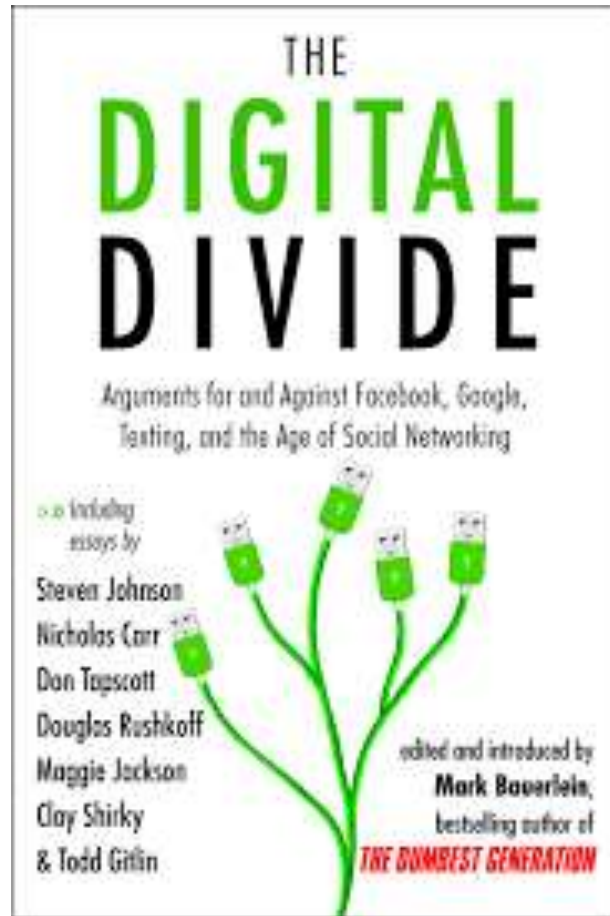
THE TEACHER IS

**primarily responsible for
student academic
achievement**

(Darling-Hammond, 2000; Darling-Hammond, Holtzman, Gatlin & Heilig, 2006; Hattie, 2009, 2012; Qvortrup and Keiding, 2015).



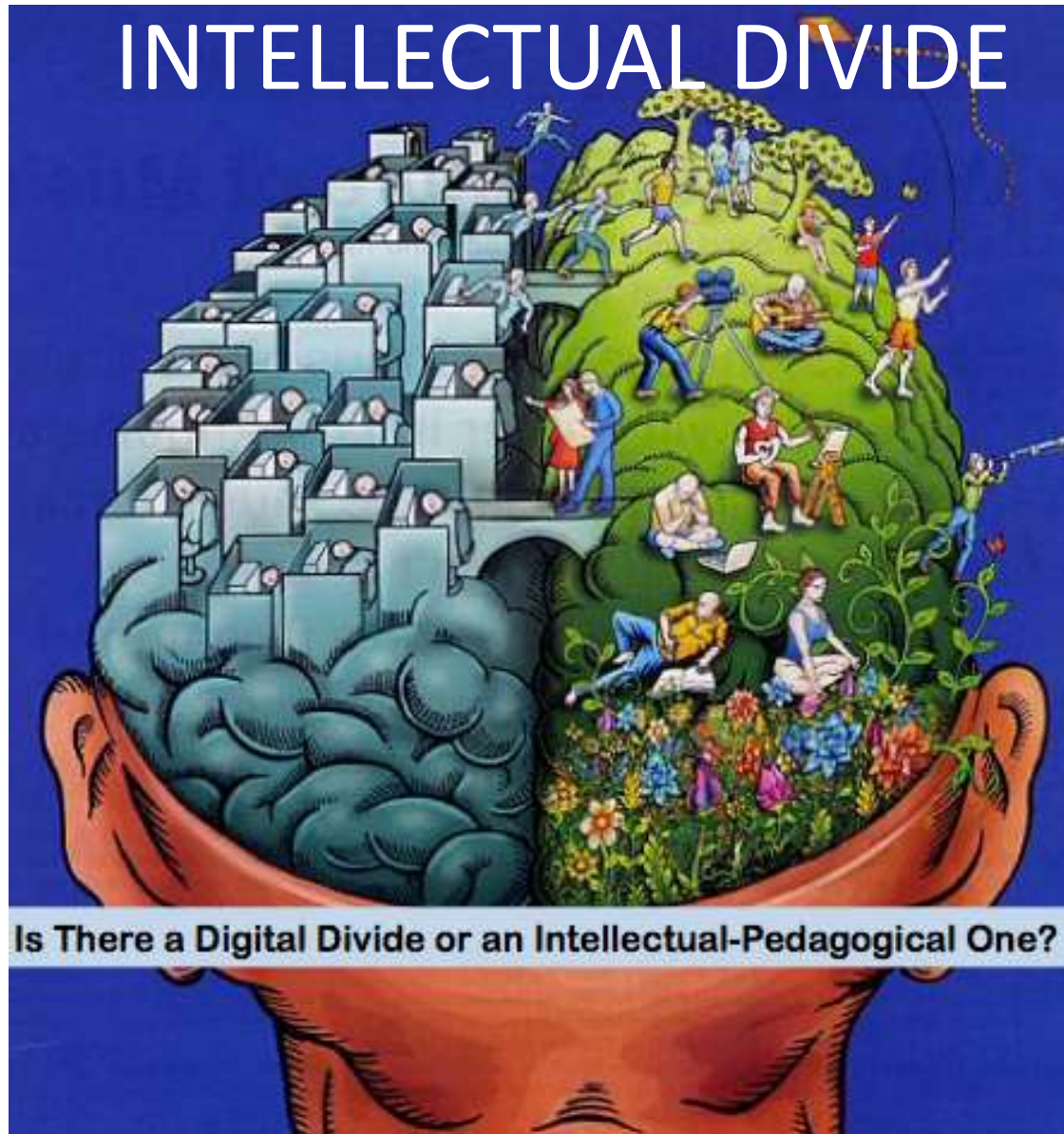
THE PEDAGOGICAL- INTELLECTUAL DIVIDE



We develop our
self through the
judgment of
others

Is There a Digital Divide or an Intellectual-Pedagogical One?

THE PEDAGOGICAL- INTELLECTUAL DIVIDE



“Teachers are the blockers or the enablers. The problem is teachers are *teaching the way they were taught.*”



John Dewey
1933

“Reflection begins in a state of doubt or perplexity which, for teachers, is most likely to be encountered when working with learners, particularly new or unfamiliar learners.”

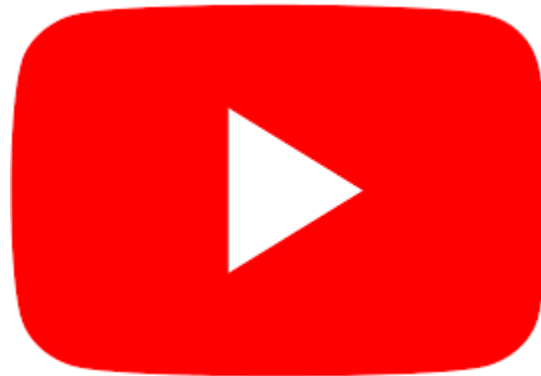


**WHO ARE THE LEARNERS IN
OUR MIDST?**

An infographic featuring two overlapping head silhouettes, one orange and one teal. The teal silhouette contains various icons and text labels representing traits of Generation Z: 'connected' (with a smartphone icon), 'technology' (with a lightbulb icon), 'social' (with a YouTube play button icon), 'educated' (with a graduation cap icon), 'visual' (with a clock icon), and 'realist' (with a bar chart icon). The central text 'GENERATION Z' is prominently displayed in white.

An infographic featuring two overlapping head silhouettes, one orange and one teal. The teal silhouette contains various icons and text labels representing traits of Generation Z: 'connected' (with a smartphone icon), 'technology' (with a lightbulb icon), 'social' (with a YouTube play button icon), 'educated' (with a graduation cap icon), 'visual' (with a clock icon), and 'realist' (with a bar chart icon). The central text 'GENERATION Z' is prominently displayed in white.

THE GEN Z LEARNERS IN OUR MIDST



THE GEN Z LEARNERS IN OUR MIDST



THE GEN Z LEARNERS IN OUR MIDST

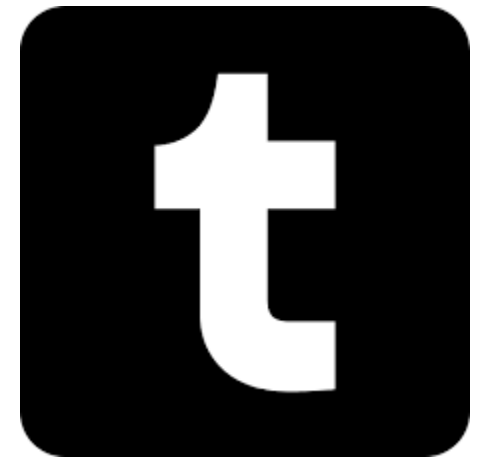


www.badoo.com

THE GEN Z LEARNERS IN OUR MIDST



THE GEN Z LEARNERS IN OUR MIDST



IF WE UNDERSTAND OUR LEARNERS

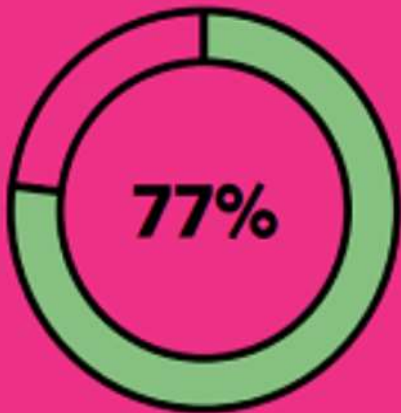
- A. Learning Environment
- B. Learning readiness
- C. Learning engagement
- D. Emotional Intelligence

2011

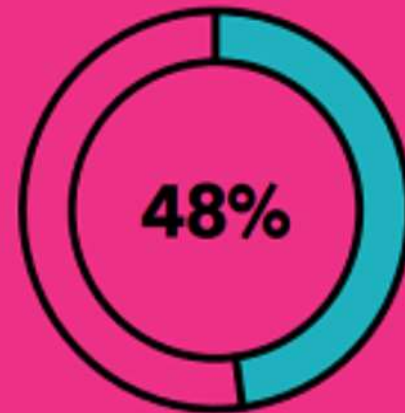


WHAT RESEARCH SAYS

Over half (515) of Gen Z agree that their generation is more creative than previous generations



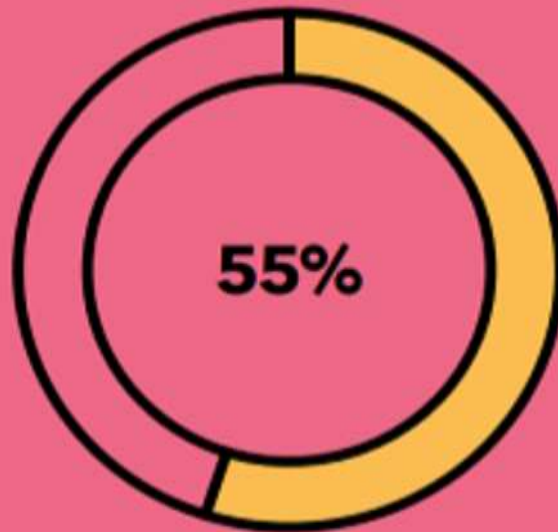
When asked how they spend their free time offline, over three in four (77%) of gen Z select at least one creative activity such as drawing, illustrating, journaling, or playing an instrument



When asked how they spend their free time online, nearly half (48%) of gen Z select at least one creative activity such as editing photos, creating memes, or creating digital art

WHAT RESEARCH SAYS

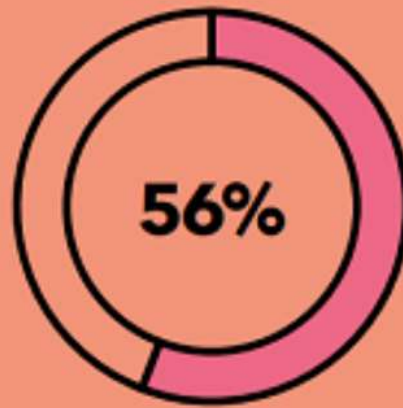
Over half of Gen Z (55%) say that they find social apps and the internet a more creative space than what they experience offline.



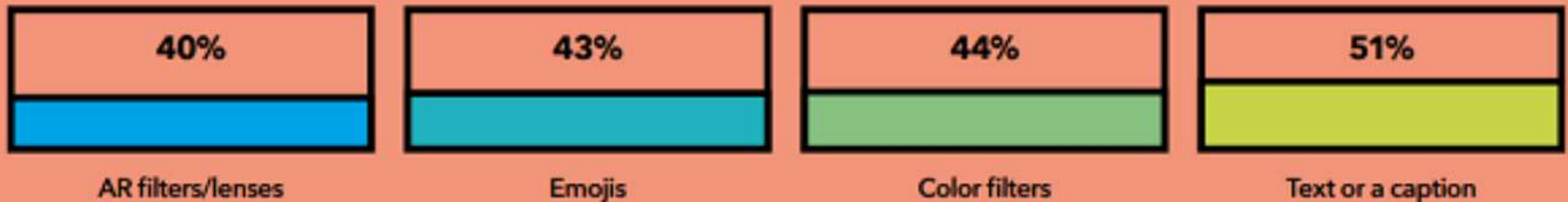
This speaks to a digitally influenced perception and experience of creativity, and perhaps to the fact that creativity for gen Z is more about manipulation/alteration than about observation/description/replication

WHAT RESEARCH SAYS

Over half (56%) of Gen Z use social apps to express themselves creatively.

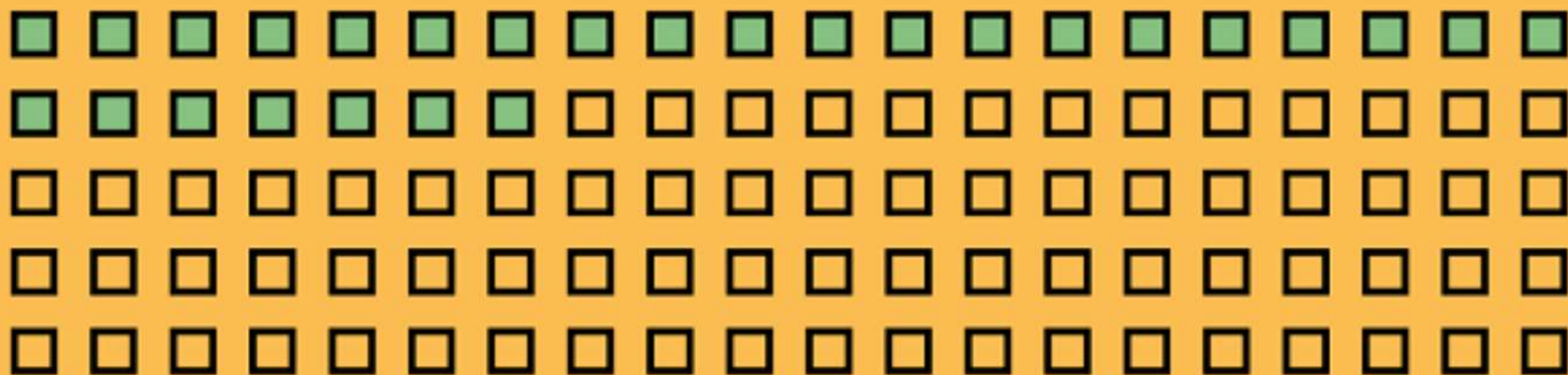


Further, 40% of gen Z state that they've used AR filters/lenses to enhance a photo/video of themselves or with friends; 43% have enhanced with emojis, 44% with a color filter, and 51% with text or a caption



WHAT RESEARCH SAYS

Over one in four (27%) of Gen Z have hacked or adapted an app/website features to do something that isn't typically available (for example, used a picture collage app or an app to add music; separate from the app they were posting with



WHAT RESEARCH SAYS

Among all apps cited (Youtube, Instagram, Twitter, Tumblr, TikTok), Snapchat was rated the top app among gen Z for



Creating videos or images



Sharing videos or images they've created



Communicating with friends



Sharing moments throughout their day

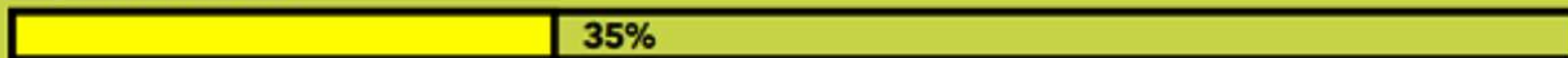


Posting what they're doing with their day (text, images, or video)

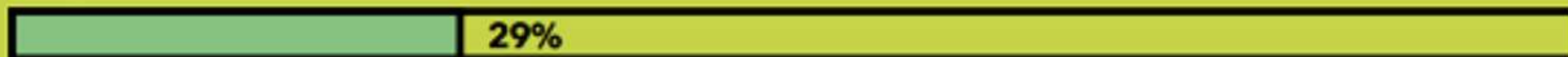
WHAT RESEARCH SAYS

Gen Z ranks Snapchat creative tools top for creating art or editing photos, ahead of Instagram creative features, VSCO, Photoshop and iMovie

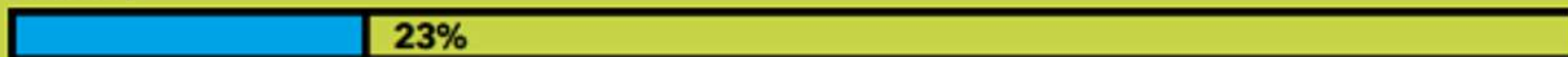
Snapchat creative tools



Instagram creative features



Photoshop



iMovie



VSCO



WHAT RESEARCH SAYS

“Just be yourself”, “Save the planet”, “We want change” and “we are the future” turned out to be the slogans that best describe them





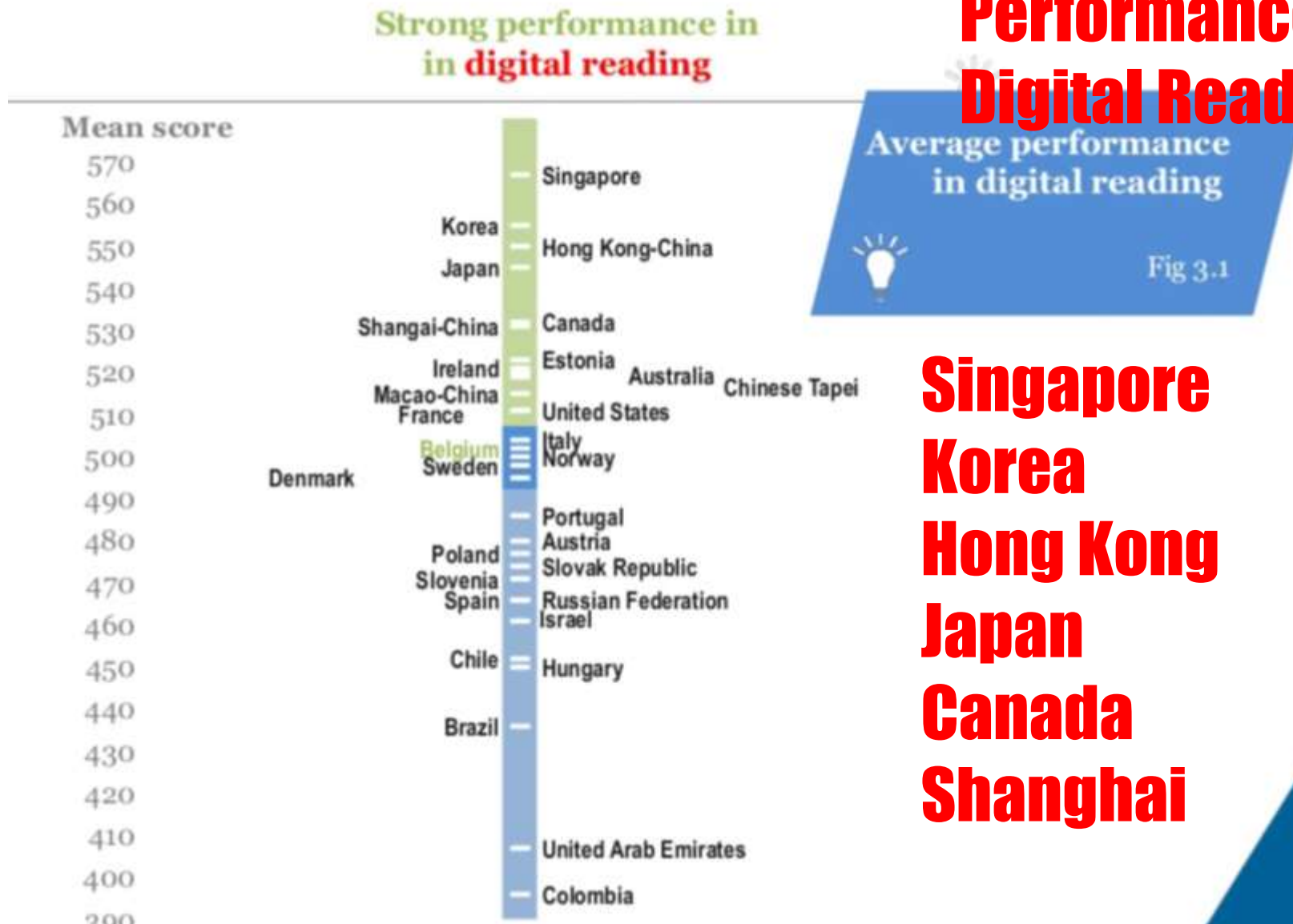
STUDENTS, COMPUTERS AND LEARNING: MAKING THE CONNECTION

Andreas Schleicher
Director for Education and Skills

September 2015

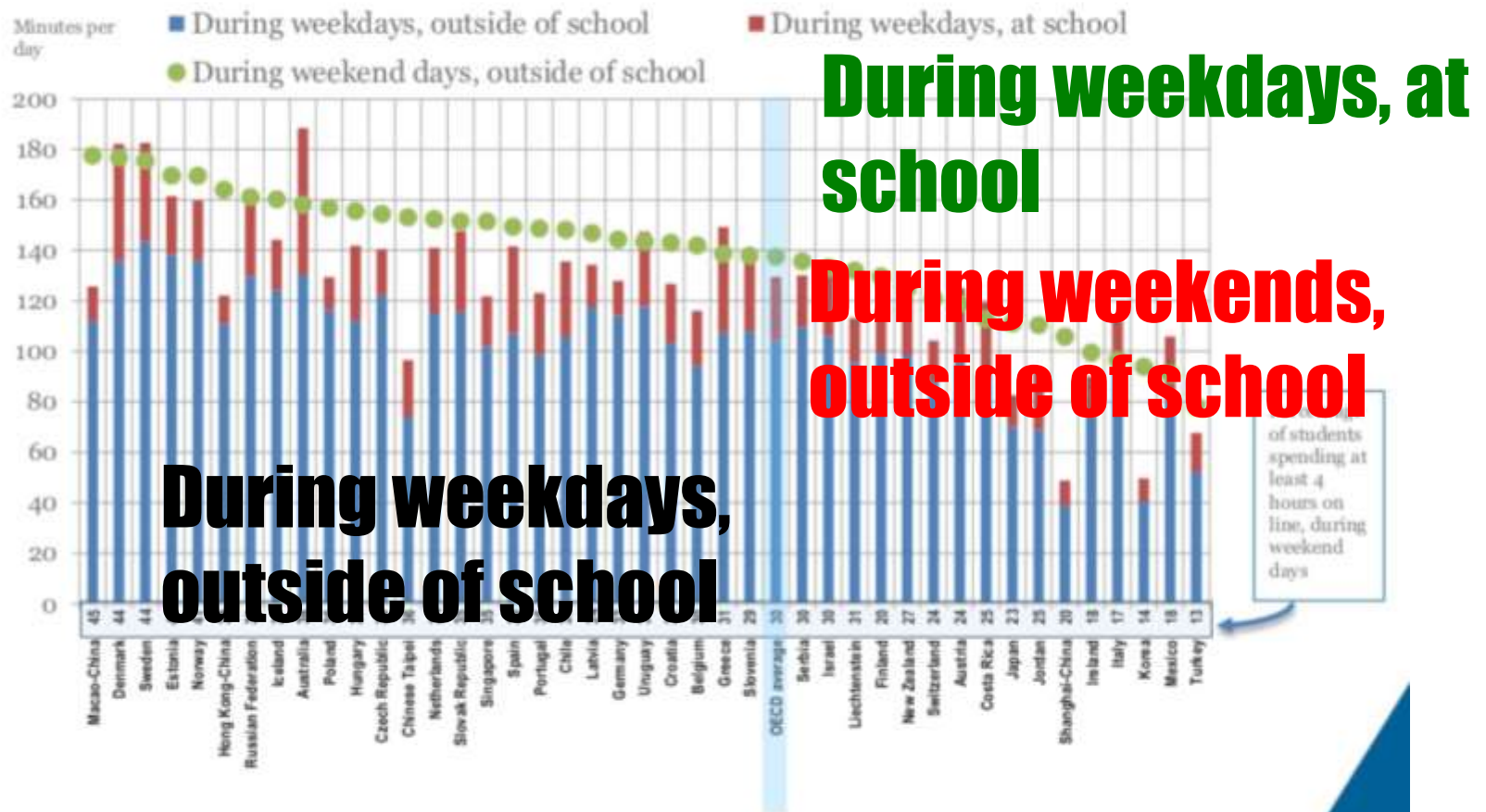
THE 2015 OECD REPORT ON PISA

Performance in Digital Reading



THE 2015 OECD REPORT ON PISA

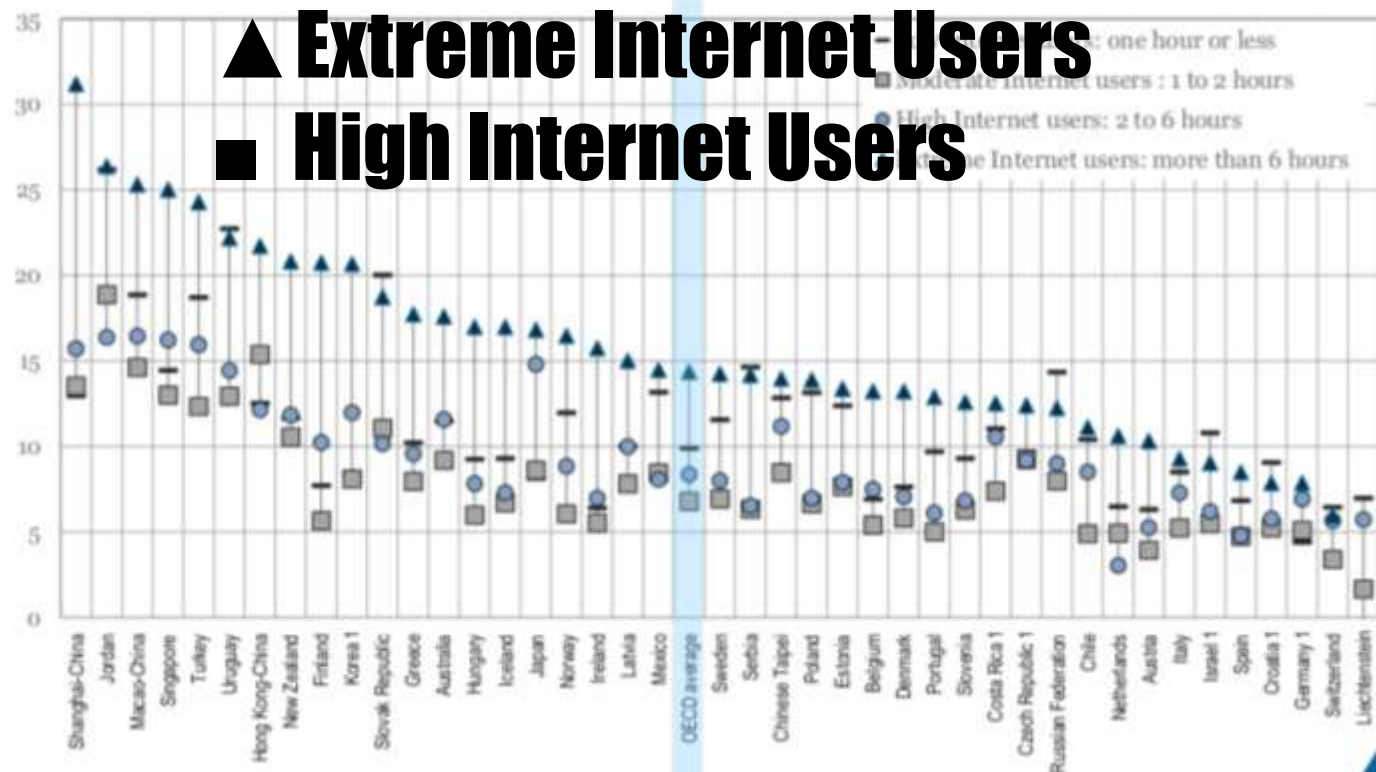
Time spent on line in school and outside of school



THE 2015 OECD REPORT ON PISA

Feeling lonely at school,
by time spent on the Internet outside of school during weekdays

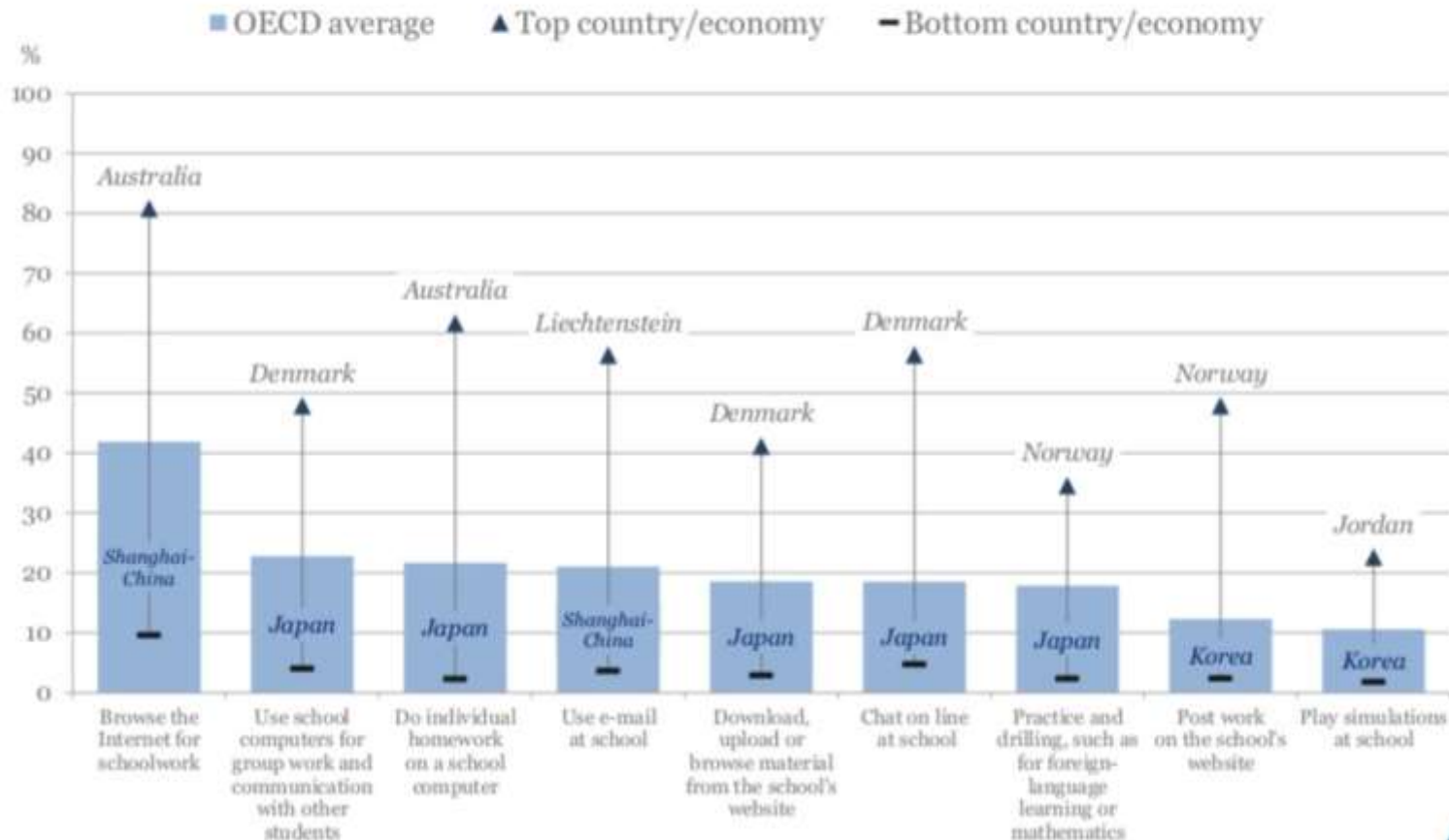
% of students who agree with the
statement « I feel lonely at school »



THE 2015 OECD REPORT ON PISA

Use of ICT at school

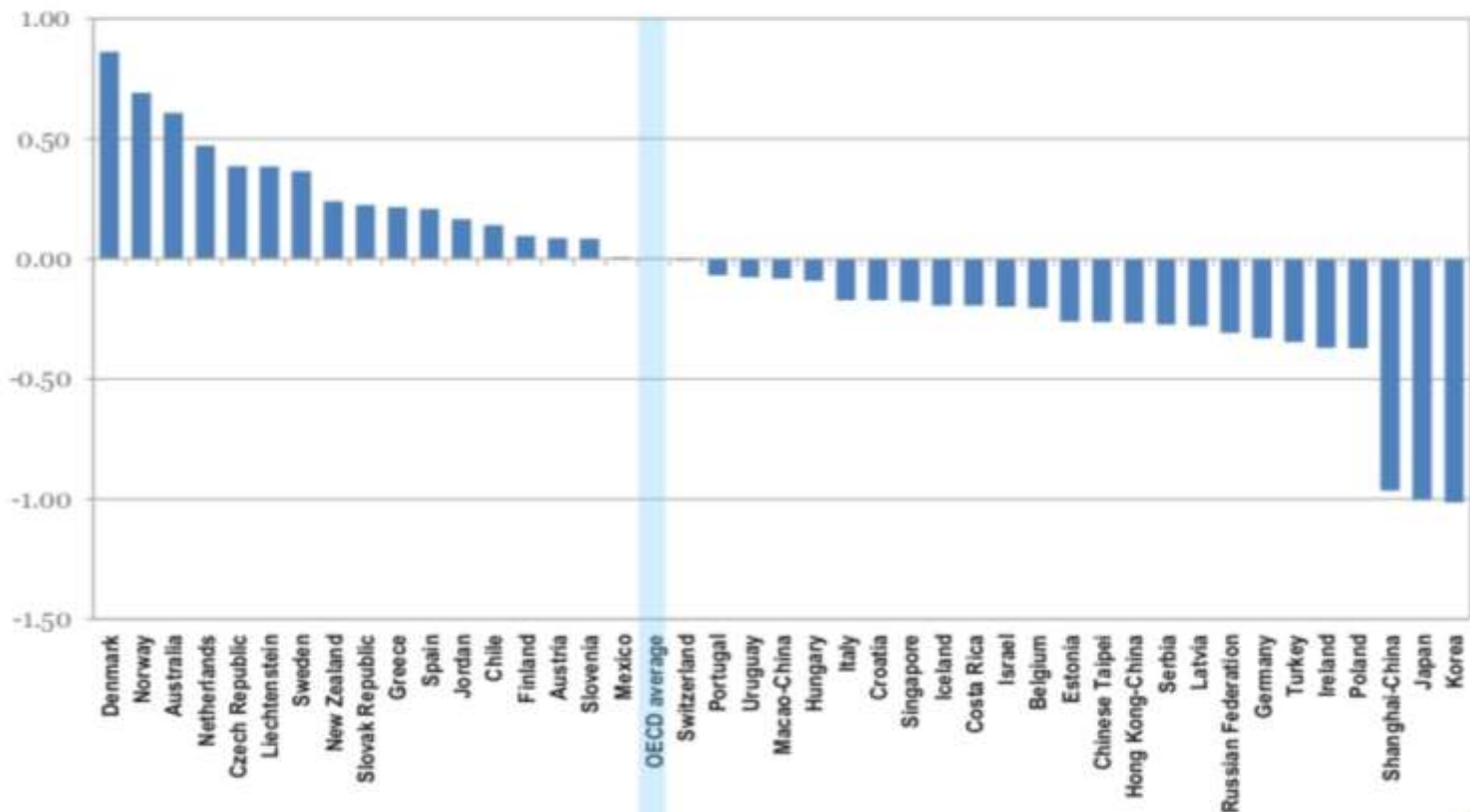
% of students who reported engaging in each activity at least once a week



THE 2015 OECD REPORT ON PISA

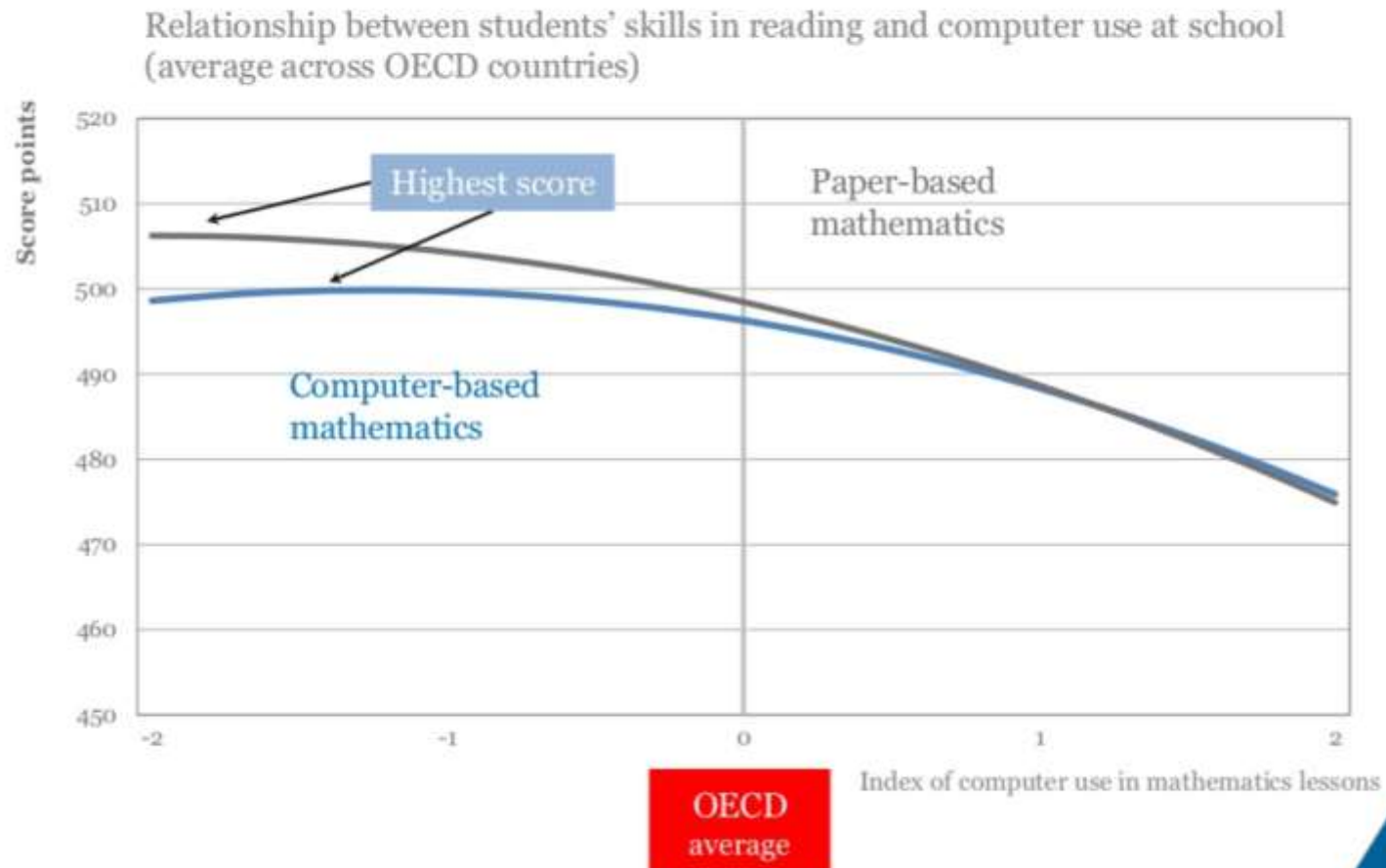
Index of ICT use at school

Mean index



THE 2015 OECD REPORT ON PISA

Students who do not use computers in maths lessons score highest in mathematics

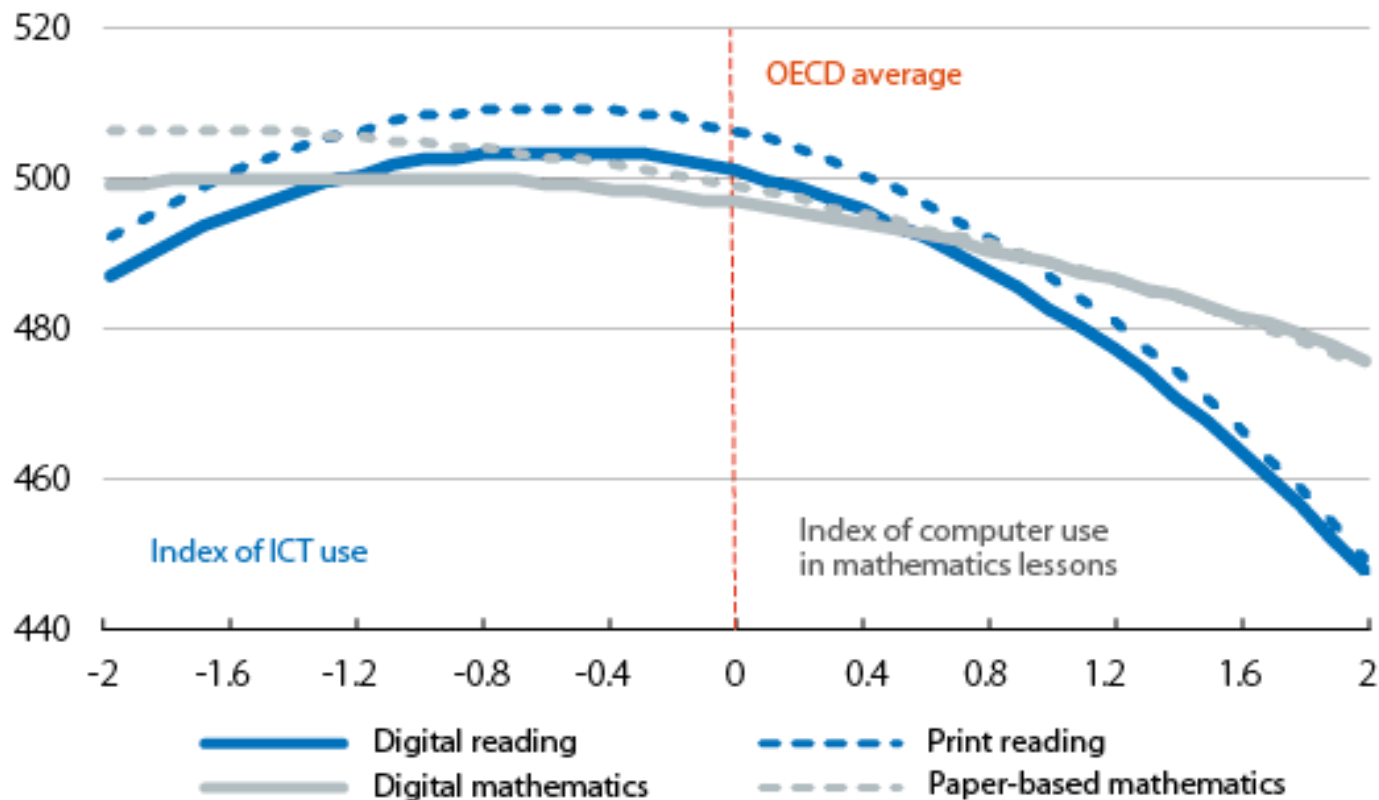


Source: Figure 6.7

TOP INTERNET USERS IN THE WORLD

Performance by the use of technologies *

Level



Note: * This shows the association between knowledge and use of technologies, taking the socio-economic variables of pupils and schools into account.

Source: CaixaBank Research, based on OECD data.

HOW TO ACHIEVE EVIDENCE IN PRACTICE



National Research Agenda on New Literacies

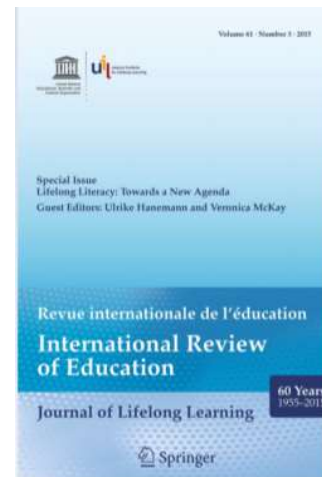
Learning and Literacy: A research agenda for post-2015

Daniel A. Wagner



“To prescribe a research agenda on any topic is hazardous – in part because the state of play in research changes constantly, but also due to the diverse interests of multiple stakeholders, including the research community itself.”

Daniel A. Wagner (2015)



Adapted Research Priorities

- **New Literacies in Enhancing School Readiness of Children**
- **New Literacies and Language Acquisition**

Daniel A. Wagner (2015)



Adapted Research Priorities

- **New Literacies and Design of Instruction in Math and Reading Classes**
- **Evaluation of Diverse Design Solutions Anchored on New Literacies**

Daniel A. Wagner (2015)



Adapted Research Priorities

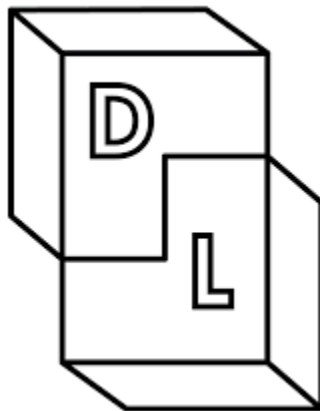
- **Affordances of New Literacies and Educational Wastage**
- **New Literacies and Accountability at the Local Level**
- **New Literacies and Education Neuroscience**

Daniel A. Wagner (2015)

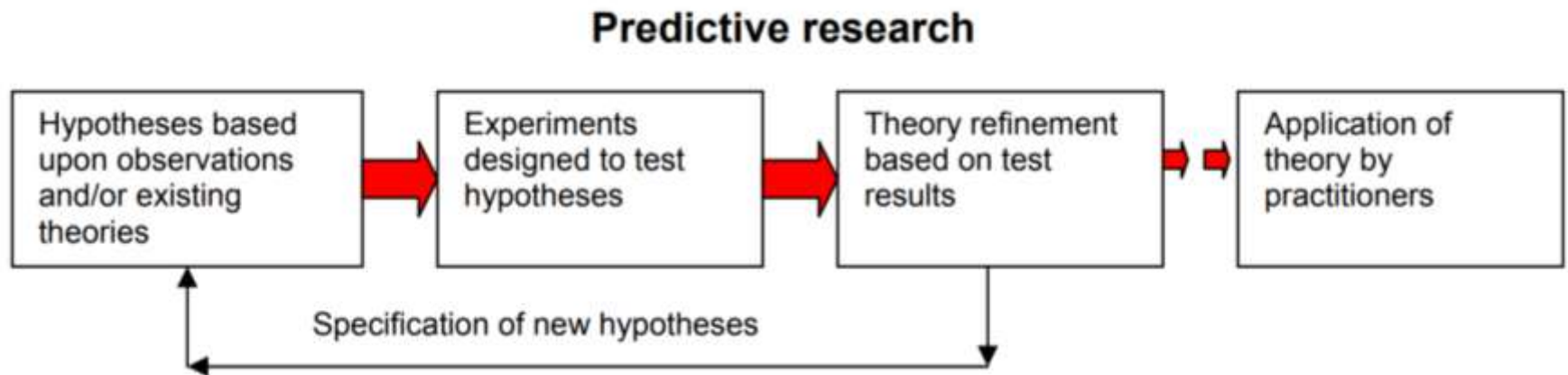


Research Approach to New Literacies Studies

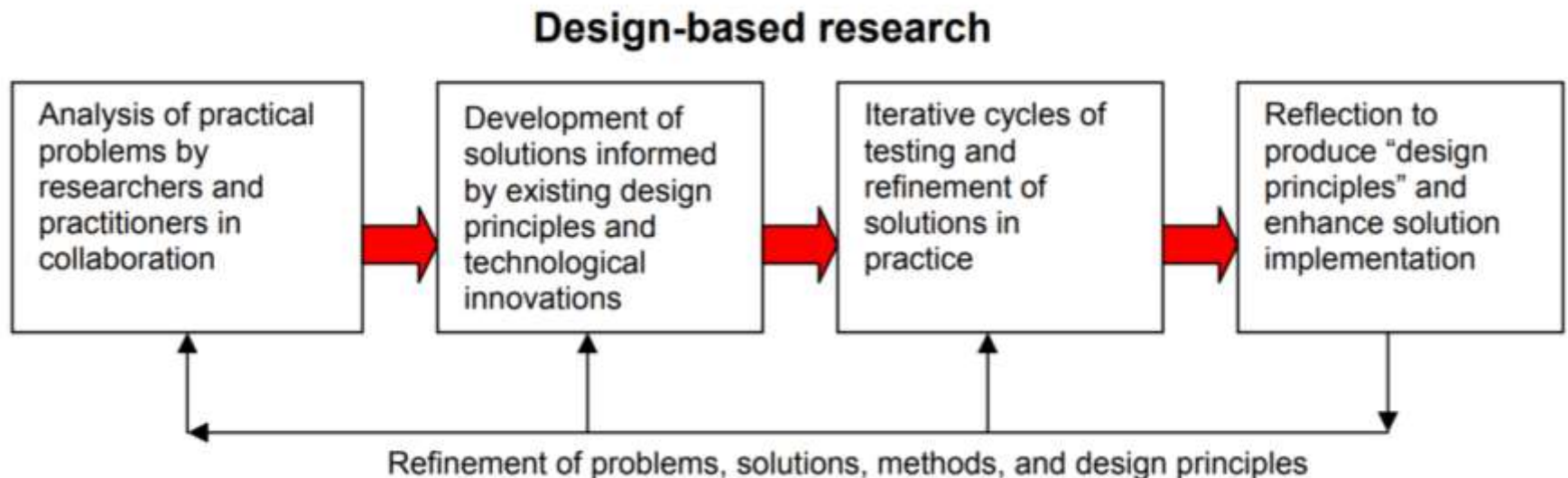
- **Design-Based Research versus Predictive Research**



- **Hypotheses based on Existing Theories**
- **Experiments designed to test hypotheses**
- **Theory refinement based on test results**
- **Application of theory by practitioners**

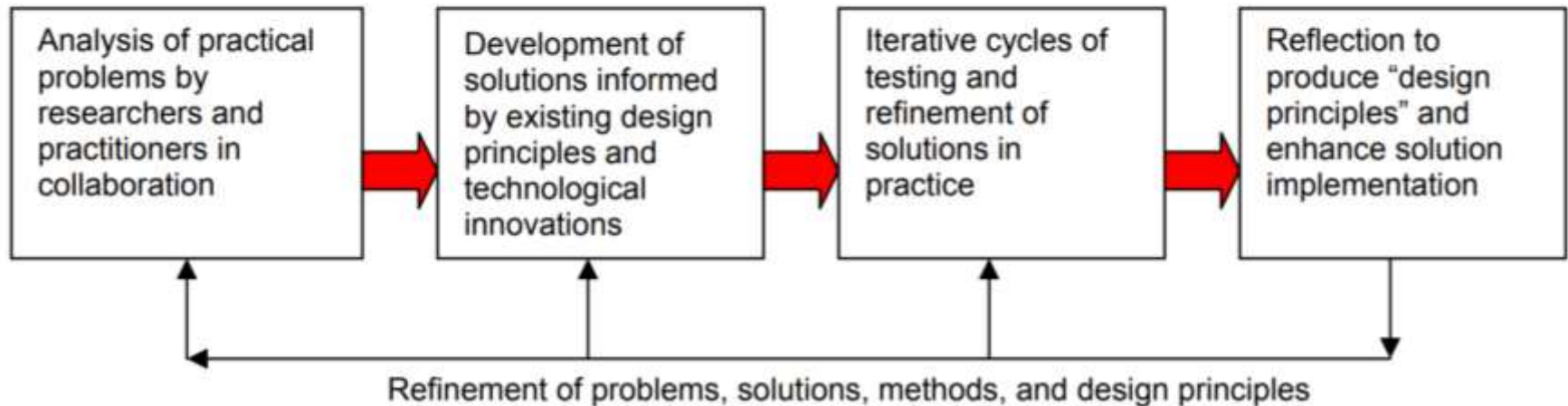


- **Analysis of practical problems by researchers and practitioners in collaboration**
- **Development of solutions informed by existing design principles and technological innovations**



- **Iterative cycles of testing and refinement of solutions in practice**
- **Reflection to produce ‘design principles’ and enhance solution implementation**

Design-based research



DO YOU REMEMBER

TOWER OF BABEL SYNDROME



May tatlong Bibe
akong nakita
Mataba, mapayat
mga bibe
Ngunit ang may
pakpak
Sa likod na iisa
Siya ang lider na
nagsabi ng
Kwak, kwak, kwak.

Tayo na sa ilog ang
sabi

Kumending ng
kumending

Ang mga bibe

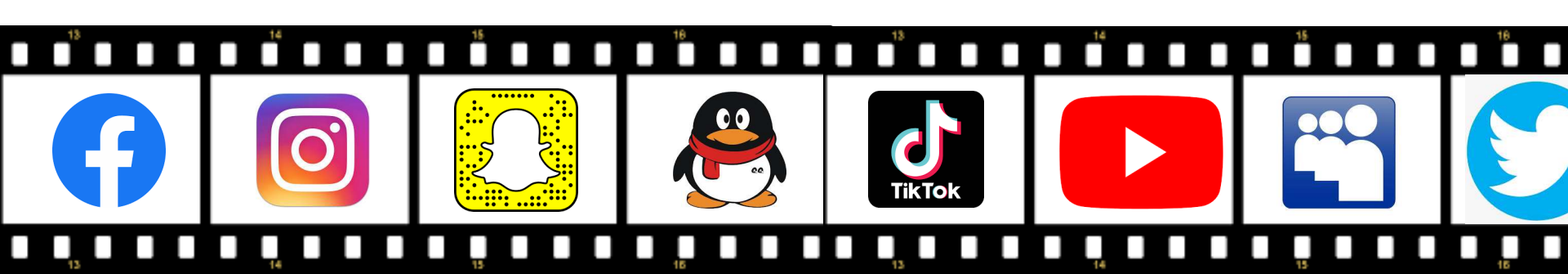
Ngunit ang may
pakpak

Sa likod na iisa

Siya ang lider na
nagsabi ng

Kwak, kwak, kwak.





Aligning Research on Pedagogies vis-à-vis 21st Century Literacies



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