

# Why quality literacy is key to 21<sup>st</sup> century education

Nuno Crato



[www.nunocrato.org](http://www.nunocrato.org)



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TERESA E ALEXANDRE  
SOARES DOS SANTOS  
INICIATIVA EDUCAÇÃO

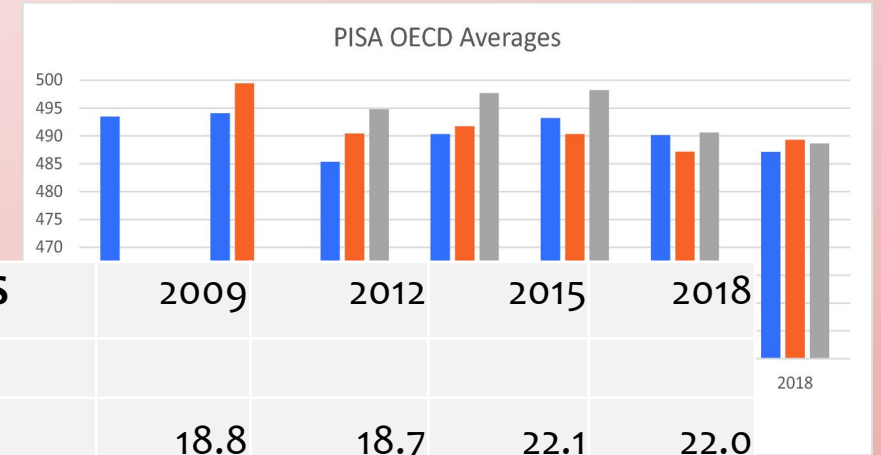
# 1. Quantity and quality

Initial standardization: Gaussian with mean 500 and s.d. 100.

OECD mean scores now: 487, 489, 489

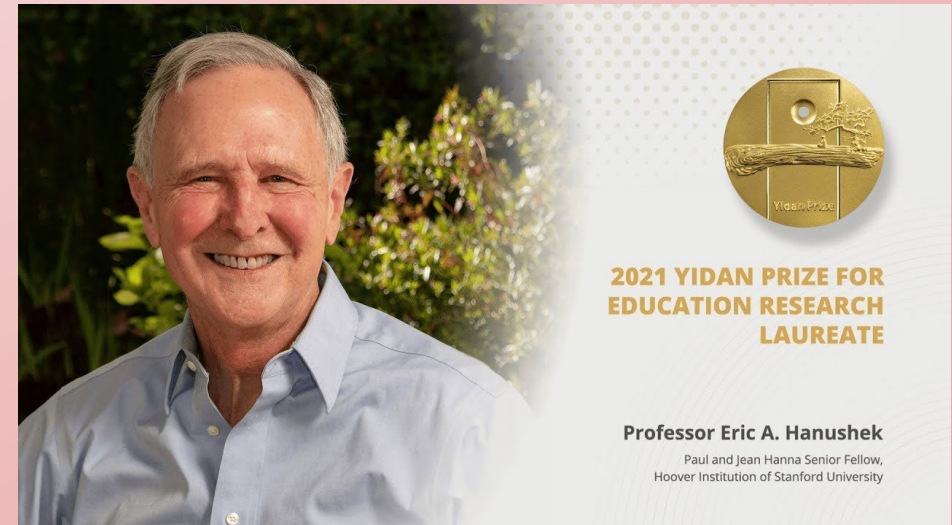
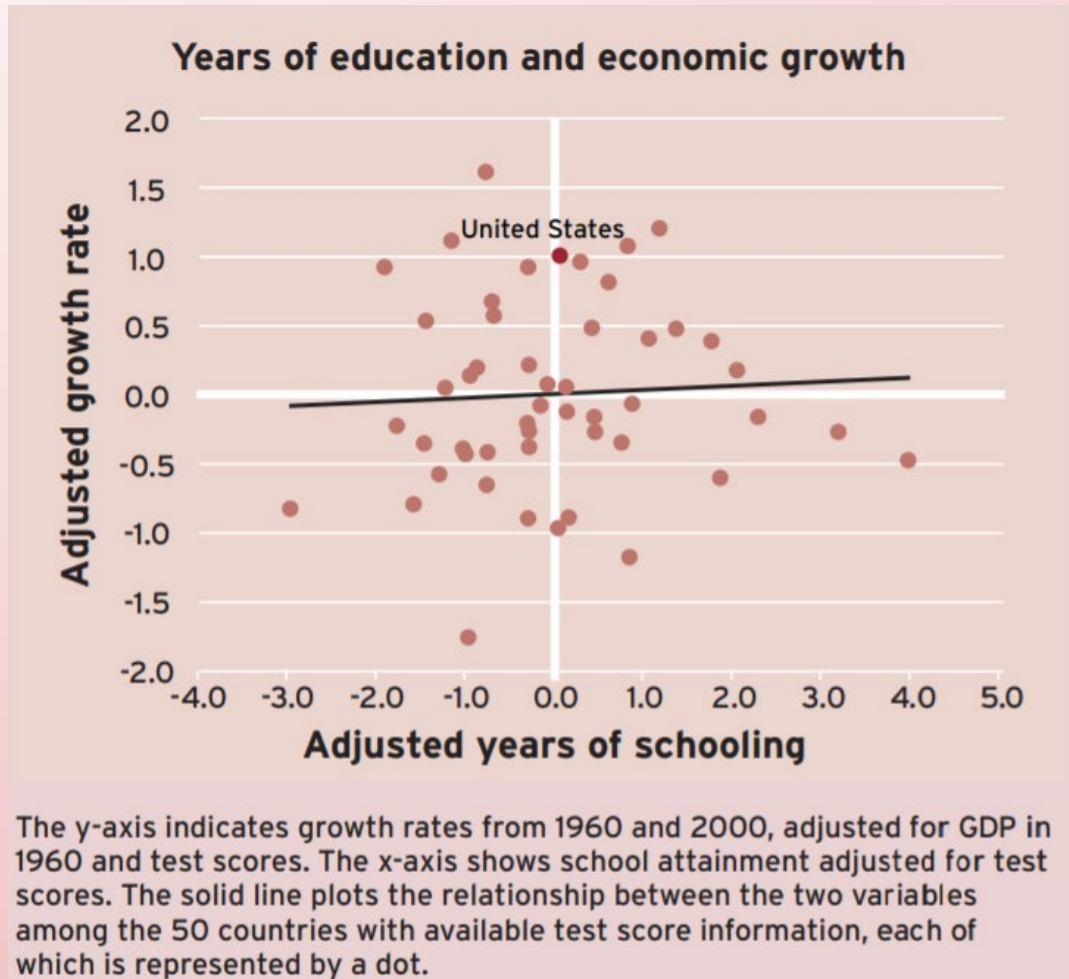
OECD countries declining slightly, but consistently after 2009

Particularly worrisome is the increase in the share of low-performers



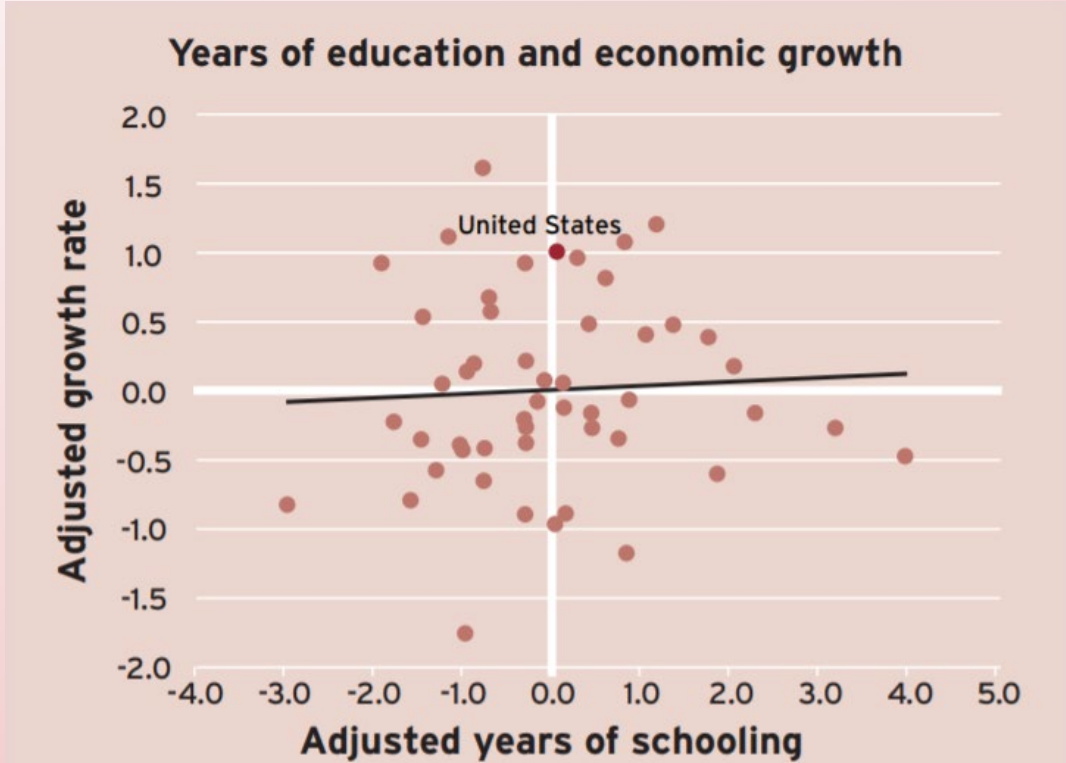
LOW PERFORMERS	2009	2012	2015	2018
<b>OECD</b>				
Science	18.8	18.7	22.1	22.0
Math (36)	23.5	24.4	24.6	24.1
Reading	19.4	18.9	20.9	22.6
<b>EU</b>				
Science		16.6	20.6	21.6
Math		22.1	22.2	22.4
Reading		17.8	19.7	21.7
<b>PORTUGAL</b>				
Science		16.5	19.0	17.4
Math (36)		23.7	24.9	23.8
Reading		17.6	18.8	19.6

## 2. Quantity and quality: School years matter... sometimes

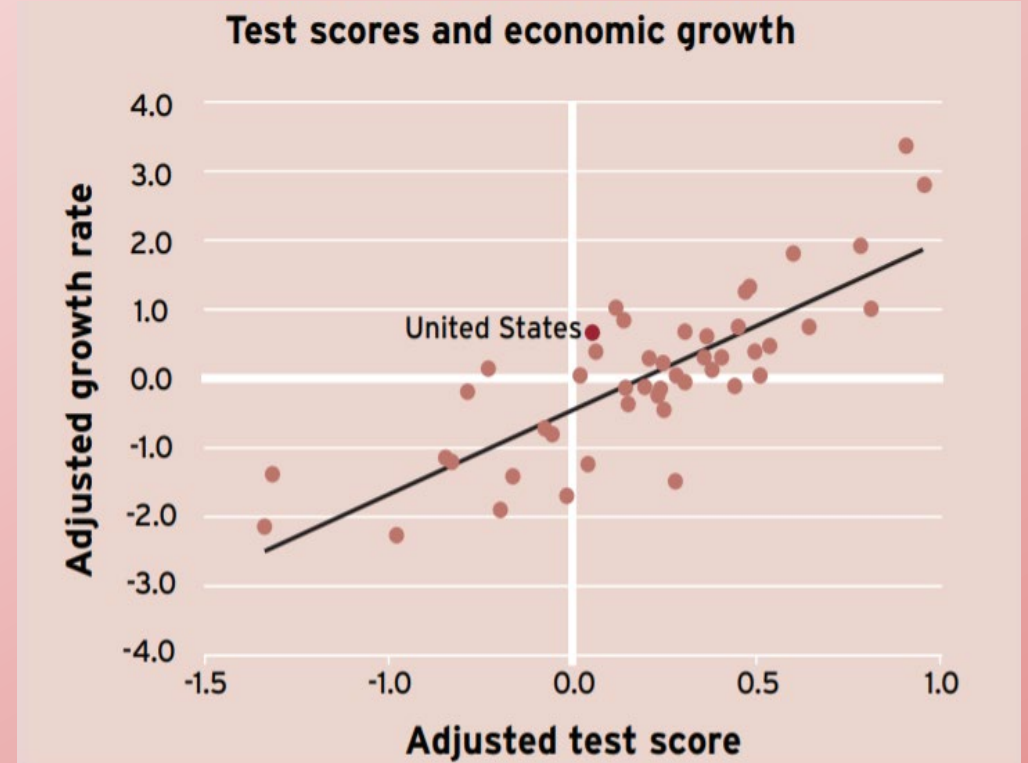


E.A. Hanushek, D.T. Jamison, E.A. Jamison, and L. Woessmann, Education and economic growth: It's not just going to school, but learning something while there that matters, *Education Next*, Spring 2008

## 2. Quantity and quality: School years matter... sometimes



The y-axis indicates growth rates from 1960 and 2000, adjusted for GDP in 1960 and test scores. The x-axis shows school attainment adjusted for test scores. The solid line plots the relationship between the two variables among the 50 countries with available test score information, each of which is represented by a dot.



Note: The y-axis indicates growth rates from 1960 and 2000, adjusted for GDP in 1960 and school attainment. The x-axis shows test scores adjusted for school attainment. The solid line plots the relationship between the two variables among the 50 countries with available test score information, each of which is represented by a dot.

# 3. Learning how to read is crucial

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HOME · ED. ON · ARTICLES

## Technology and Education. An effective alliance

01.12.2020 AUTHOR: JOANA PAIS

*Education is no stranger to technological innovation. However, doubts remain about the use of technology in education. What scientific evidence is there showing that the use of computers improves student performance? A very recent study used PISA data from over 10 years to try to answer these and other questions.*



We are experiencing a period of rapid technological progress and we have witnessed the emergence of various new forms of teaching using technology. The use of computers and tablets, both inside and outside of school for many students, is the possibility of connecting to the Internet, where exercises and games, video sophistication, and even digital platforms for educational purposes can easily be found. But what are the indicators that indicate that the use of these technologies improves students' learning?

There is no single answer to this question, firstly because technology can be used in a wide variety of ways, both in the classroom, with more or less monitoring by the teacher, in different activities, ranging from the research of new information to the practice and consolidation of concepts already learned, and at different levels of maturity of the learning process.

The answers, however, have to be sought in real life. The first studies, which used multivariate regressions and instrumental variables, tended to show significant positive (and in some cases negative) effects of the use of technology on school results. More recent studies use experimental or quasi-experimental approaches. The latter aim at mitigating the selection effect naturally present in the data in an attempt to isolate the effect to be studied, namely the impact of technology introduction on learning. A large part of these studies point to effects of little or no magnitude, which is still disappointing in view of the investments in technology for educational purposes.

Technology inside the classroom



INÍCIO · NOTÍCIAS

## As vantagens de escrever à

20.07.2020

*Um novo estudo em laboratório universitário norueguês provocado pela escrita e desenho manuais é largamente em computador.*



Numerosos estudos anteriores tinham vindo já a mostrar que as crianças quando escrevem à mão. O que este novo estudo indica é que o uso de computadores e tablets, tanto dentro como fora da sala de aula, para muitos alunos, é a possibilidade de se conectar à Internet, onde exercícios e jogos, vídeo sofisticado, e até mesmo plataformas digitais para fins educativos podem facilmente ser encontrados. Mas, quais são os indicadores que sugerem que o uso destas tecnologias melhora o desempenho dos alunos?

O estudo foi feito por electroencefalografia e confirma diversas pesquisas que sugerem evitar a digitalização extrema das atividades letivas. Num ensaio, por exemplo, mas que a escrita manual seja melhor para

Estes novos dados científicos colocam mais uma vez em causa a teoria de que a escrita manual seja melhor para quem tem uma caligrafia deficiente, se poderia evitar a fase de escrita cursiva e ensaiar



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## The 'fiction effect' in youth reading

27.02.2020 AUTHOR: VIOLANTE F. MAGALHÃES

*In a 2019 study, based on PISA data analysis on reading, researchers John Jerrim and Gemma Moss concluded that there is a consistent relationship between the highest scores obtained and the frequent reading of narrative fiction books. However, the same does not apply to reading magazines, comic books, non-fiction books, or newspapers. There is, therefore, a salutary fiction effect that cannot be overlooked, making it urgent to encourage young people to read this type of text.*



Reading, in particular the reading by young people, is an issue that is permanently in the spotlight. And understandably so, not least because we all recognise that in a society of written culture like ours, the ability to read is an essential skill for the realisation of the individual and for the development of the collective. For this reason, parents, teachers, political decision-makers, in short, most citizens, are always attentive to what can be done to develop in young people this art of reading, which is beneficial both for the future and the present, namely, in school success, as practical experience indicates.

Studies carried out by different scientific domains challenge to a greater understanding of the field of reading and the search for evidence to guide on how to potentiate and withdraw from this activity greater advantage. The association between young people's reading frequency and improved school performance has been repeatedly demonstrated in the academic bibliography (with a strong role attributed to motivation). However, the association between reading different types of texts and reading skills has been less explored. In this sense, the contribution of John Jerrim and Gemma Moss, who in a 2019 article compare the 2009 PISA results on reading and reading frequencies of different types of text by young people, becomes relevant.

**The authors concluded that reading fiction books (novels, narratives, short stories) gives young people significantly stronger reading skills than reading other texts.**



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## Reading on paper or reading on screen?

22.10.2019 AUTHOR: CÉLIA OLIVEIRA

*Are digital media affecting reading comprehension? It seems the answer to this*



According to the results of 10 years of research in this area, involving 171,055 students, the levels of comprehension were higher than those of equivalent digital text. This difference was observed in all levels of instruction (from elementary school to university) and increased over time. Given that digital media impair reading comprehension, but also that digital media improve reading comprehension, the authors recommend the development of scientifically informed pedagogical tools that improve reading comprehension in digital devices and also that students might be guided to develop the skills they need to use these

## It is still too soon to throw away printed books

Today, most of our reading is based on a screen. But is our comprehension influenced by the reading research published between 2000 and 2017, involving 171,055 students from elementary to postgraduate level, affirmatively to this question?

This has become a pressing issue in recent years, due to the gradual transition from paper-based reading on computers, tablets and mobile phones, whether in classroom contexts or for personal purposes. However, reading comprehension in digital media is still scarce, and the results are inconsistent. To make sense of the

INÍCIO - PROGRAMAS - AaZ - LER MELHOR, SABER MAIS



## Multimédia AaZ

Biblioteca de vídeos e materiais multimédia produzidos no âmbito do programa AaZ - Ler Melhor, Saber Mais. As Histórias de AaZ são um desses exemplos.

FILTRAR POR PROGRAMA



### Histórias de AaZ: para ajudar a ler melhor

O programa AaZ - Ler Melhor, Saber Mais lança um conjunto de vídeos de leitura acompanhada para todas as crianças que estão a iniciar-se na leitura. É uma atividade particularmente apropriada para as crianças do 1º e 2º anos de escolaridade. Incluem-se histórias lidas por autores como Luisa Ducla Soares, Alice Vieira ou José Faria. As crianças podem também optar por ler sozinhas.

SABER MAIS



### Fala o Sal

Se o sal falasse, o que nos diria? «Fala o Sal», de Mário Castrim, é uma divertida resposta a esta pergunta. Conheça o sal, neto do salteador, que rapidamente se transforma em salmão, se lhe pusermos a mão. Uma História de AaZ, para ajudar os mais novos a aprender a relacionar a palavra falada e escrita.

SABER MAIS



### História das Portas

Já reparou que cada porta de casa é única no som que faz? Violeta Figueiredo dá voz a cada uma delas, na sua «História das Portas». Uma História de AaZ, onde o texto é sublinhado à medida que é lido, para ajudar os mais novos a aprender a ler.

SABER MAIS



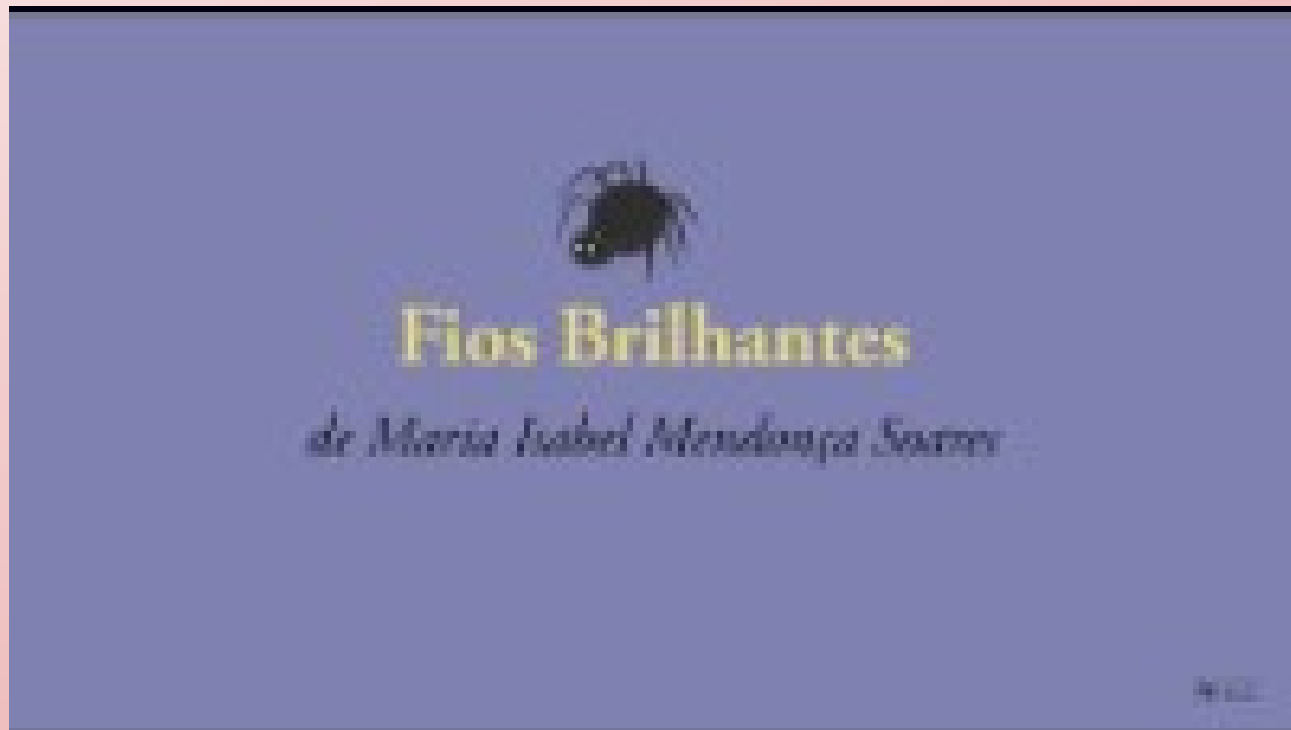
### Fios Brilhantes

As pobres aranhas da casa só queriam ver a árvore enfeitada. Muito tristes, perseguidas e enojadas, escondidas entre os ratos e as baratas, lamentavam o seu mal. Até que uma estrela veio ao seu encontro e mudou o Natal de todos, para



### Amália, já sei quem és

«Amália, já sei quem és» conta a história de vida de Amália Rodrigues. Um excerto da biografia de Amália, da autoria da fadista Carminho e edição da Nuvem de Letras. Uma História de AaZ sobre uma menina encantada que fazia saltar o coração daqueles que a ouviam cantar.



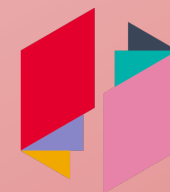
# Thank you!



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