



# **COVID Learning Loss**

You thought things were going to be bad?  
Well, ... it's going to be much worse than that!

**Ian Walker**

Lancaster University, IFS London, and IZA Bonn

**Lancaster Public Lecture 09/03/21**

[ian.walker@lancaster.ac.uk](mailto:ian.walker@lancaster.ac.uk)

# “Childhood in the time of COVID”



- Our children are back! But lost **6 months** of schooling
  - ½ year of schooling costs about **£30 billion**
    - **High variance in lost schooling: Low SES lost more than high SES**
  - See [IFS research](#)
- **Learning loss?**
  - We’ll never know how much learning has been lost
    - English test scores abandoned or incomparable
      - **High variance: low SES pupils have lost more learning | schooling**
    - How effective is learning at home?
- **Can the COVID cohort catch-up?**
  - How much learning might have been lost?
    - How much has been mitigated thru online/home schooling?
    - How does this vary?
    - **How can they catch-up? What will it cost?**
- Lots of things that I could talk about – but I won’t
  - This talk is **ONLY** about COVID and learning

# What has been lost?

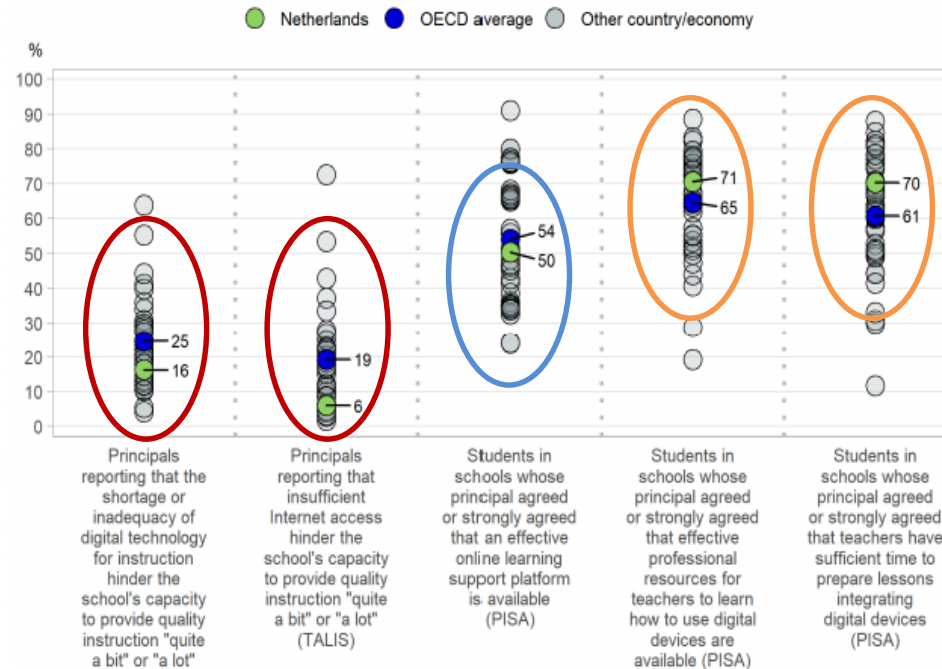
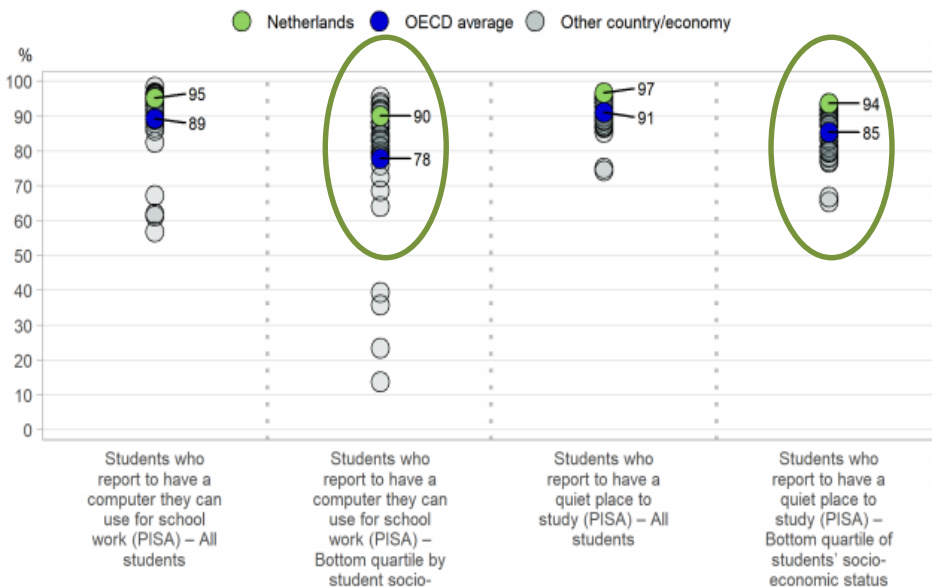


- Schools/teachers do **a lot** of good things for our children
  - They raise skills – and increase what our children can “do”
    - Skills are important – because they “cause” higher incomes
    - Skills are not the same as test scores
    - And other things are important - besides skills
- **“Skills beget skills”**
  - So missing school not only lowers skills
    - **It also lowers the rate of subsequent skill formation**
- **So what do we know?**
  - More hours of schooling p.a. seems to matter (for tests)
  - “Summer slide”
  - Variation in (US) “snow days”, across time and counties
  - Strikes
  - Financial “rate of return” to “investing” in extra schooling

# Good news for Netherlands



- NL seemed in good shape for online learning (pre-COVID)
  - Almost all (age 13) pupils have a PC and a quiet place to study
    - NL is about half the OECD average SES gap
  - Heads think little internet access problem (98% in NL), good tech
  - Teachers better prepared than most other countries
  - Online platform slightly below OECD average?



# More good news

- And NL has comprehensive test score (LVS) records
  - Two tests in 3 subjects each year (plus many “3-minute-tests”)
    - Pre/post 1<sup>st</sup> lockdown data compared to same tests of previous cohorts
- Only about 8 weeks (20% of a year) of NL **lost schooling**
- So .... how much lost **learning** in NL?
  - **That is, how effective was NL home-based schooling?**

## Bad news

- [Engzell et al](#) (see also IZA WPs [13641](#) [13965](#) [14009](#) ....)
  - Difference pre/post vs Same difference for previous cohorts
    - Average 20% lost learning - same as the loss in schooling
    - Implies little or no learning from home-based schooling

# Learning catch-up policy in NL



- Even though NL was well-prepared, it knows that it has a big problem
- What is NL doing to catch-up?
- Extra €500m (equivalent to about £1.6b in England)
  - €244m school subsidy scheme
  - €4 m for laptops (about €2 per pupil)
  - €500m fund for subsidies to run catch-up/social programmes
    - Holidays / weekends / before or after-hours
- Learning loss will vary a lot across children/schools
  - Schools need to apply
  - Teachers encouraged to assess child needs and customize catch-up
    - Data-driven support for this
  - Trainee teachers hired to help during catch-up
- Not possible to evaluate NL catch-up effectiveness, yet

# How about average English child?



- We'll never know how well **English** children fared
  - English test scores now incomparable with previous cohorts
- Compare COVID cohort **schooling** with earlier cohorts
  - What's the relationship between schooling and learning?
  - How much lower are **earnings**, if you have  $\frac{1}{2}$  year less schooling?
- Estimates of the financial “return to education”
  - Harmon/Walker, **American Economic Review**, 1995
    - Compares earnings of pre and post RoSLA cohorts
    - Estimate of the effect of extra schooling – for those that didn't want it
  - Halving “causal” effect suggests “wage rate” fall by about 4-5 %
  - Say £40,000 over an average working life
  - **£360 billion across 9m pupils**
- Underestimates the loss?
  - “**skills beget skills**” ?
    - lost learning makes **subsequent** learning harder
    - Losing it at 14 is worse than at 15

# Learning catch-up in England

- **What we know so far**
- £1b educational catch-up initiatives fund (**now £1.7b**)
- One-off, catch-up premium for 2020/21 for year 1-8 pupils
  - £80 per student (1.5% extra) “to make up for lost teaching time” (about £450m)
  - Non-mainstream schools get £240 per student (about £7m).
- £350 million for the National Tutoring Programme
  - It could pay for up to 18k “academic mentors” (about 1 per school)
  - Or ... up to 1 million catch-up courses at £350 per pupil
- Not yet clear how the extra money will be spent on?
  - Double the NTP inputs above?
  - Maybe get 18k “mentors” **AND** a lot of catch-up activity?



# What would catch-up cost ?



Lancaster University  
Management School

- What little we know about effectiveness of small group catch-up tutoring is (fairly) reassuring
  - Experimental evaluations of catch-up schemes by [EEF](#)
    - “Effect sizes” are about 0.2 = **adds 3 months progress**
      - One 12-week “treatment” costs £350
    - Effect sizes might “fade” (e.g. STAR class size experiment)
    - But tests just evaluate the effect on the content of the treatment
    - We (also) need “warts and all” large scale evaluations
      - And we need long term effects? Not just on educational outcomes
- Toronto “Pathways to Education” [program](#)
  - PV costs C\$14k but yields PV **earnings** gains of C\$72k (so tax revenue rises by PV C\$21k) – **benefits 50% higher than costs**
    - Long term effects but comprehensive wraparound treatment
- What’s the long term effect of catch-up alone?
  - LSYPE dataset contain private tutoring info
    - Who, how much, what subject, for each of 3 years
  - And KS2 scores and KS5 scores – before and after tutoring

# Implementation

- What's the best way of implementing catch-up?
  - Group size? Before/after hours? Weekends? Holidays? Longer school year?
  - Teacher, para-professional, non-professional, parent, CAL
  - Curriculum content, grade level
- Extensive Oreopolous review of the effectiveness of (US) one-to-one and small class tutoring ([NBER WP 27476](#), 2021)
  - Average “effect sizes” for teacher-led classes – **average 0.5**
    - Para-professionals nearly as good, parents not very good at all
    - Bigger for literacy than numeracy
    - Bigger for primary than secondary
    - Bigger during school than pre/post-school
    - Bigger for smaller groups
- Esceuta et al ([NBER WP 23744](#), 2017) shows CLS is (surprisingly) effective

# What will catch-up cost ?



- If the effect size = 3 months catch-up then
  - We'll probably need 2 doses to catch-up on missing 6 months
    - for 2+ “subjects”, for up to 9 million pupils
  - Up to 36 m “doses” is 2000 per mentor
    - would take 2 years to deliver
- **£12 billion?**
  - **many times as much as is in the budget**
- Beware of the “opportunity cost”
  - Children could be doing something else instead of catching-up
- Be selective?
  - Prioritise low SES children
  - But important not to stigmatise and risk non-participation
  - Important to combine catch-up with wider activities
  - Don't be too selective?
- **Sunak – “you're gonna need a bigger boat”!**