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
“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 1st 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 ½ year less schooling?
- Estimates of the financial “return to education”
    - 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?

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?
  – 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”!