



**Did the ICCAMS intervention work?**


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Economic Studies &  
Mathematics Institute



ICCAMS  
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**Multiple comparisons**

- Total scores on the three ICCAMS tests (Algebra, Number and Test R);
- Two intervention groups (Phase 2 and Phase 3), each with a comparison group;
- Three different comparison methods (overall changes in mean score and age; rates of score gain per year; regression of post-test scores on pre-test and other covariates);
- Two ways of selecting comparison groups (using all non-intervention pupils with repeat tests; using propensity score matching)

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**Caveats**

- No matched control or comparison group as part of the design
  - Likely to be unobserved differences
- Schools and/or teachers involved in both interventions were self-selected volunteers
- Different times of testing
  - Phase 3 classes were tested twice in the same year (at the start and end of the year)
  - Longitudinal sample June/July of each year
- Phase 3 pupils did not have MidYIS scores, or any other strong predictor of their likely performance in the absence of any intervention
- Intervention groups scored significantly higher than the control group on their first test, before any of the intervention was received

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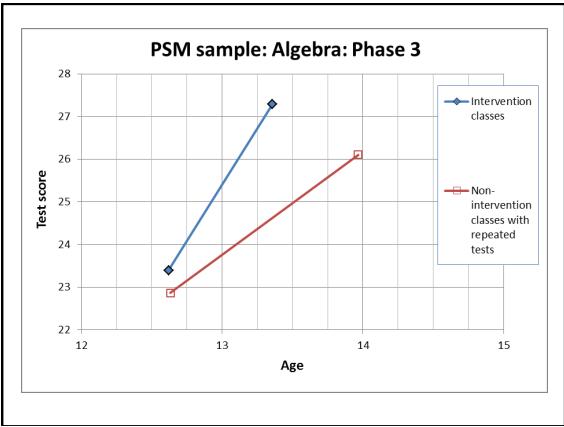
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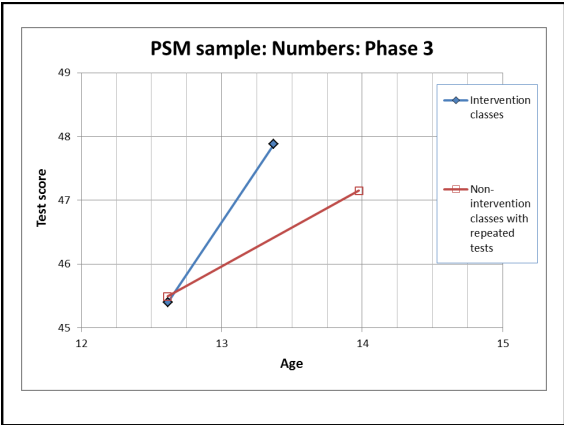
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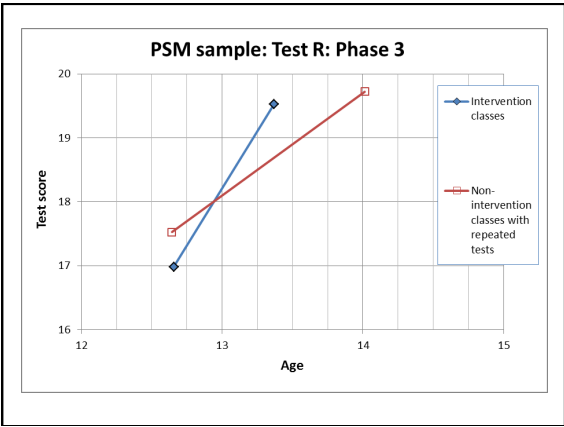
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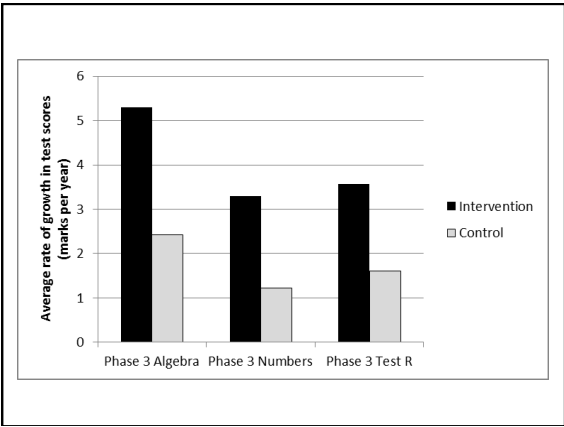
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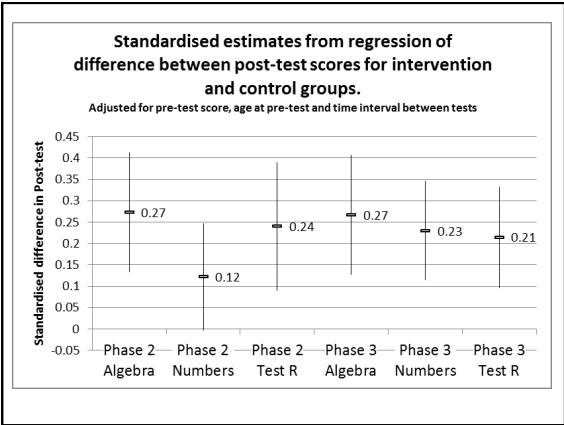
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### Implications

- Intervention schools made large gains
  - Similar to gains for formative assessment generally
  - Large gains possible because annual rate of growth is small
  - Tackling the attainment gap is more problematic
- BUT ...
  - Schools and some teachers volunteers
  - Intervention undertaken by the research team
  - Can the intervention be scaled up?
  - Implementing the intervention “at distance”?
  - Sustaining the effects?

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**Next steps**

- Trial with random allocation
  - Investigate effects of implementation by others
  
- Investigate comparative effects of interventions
  - “Competitions” between interventions
  
- Investigate effects on participation
  - What do students do post-16?

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