Causal questions in education research: Methods, issues and policy responses

ANU Centre for Social Research and Methods
I used to think correlation implied causation.

Then I took a statistics class. Now I don't.

Sounds like the class helped.

\ well, maybe.

https://xkcd.com/552/
• Does participation in ECE improve outcomes for children?
  • Does the number of hours make a difference?
  • Does the institution a child attends make a difference?

• Did the introduction of the National Quality Framework affect the benefits of ECE?
  • Is it teacher qualifications, teacher ratios, something else?

• Do boys/girls, Indigenous/non-Indigenous, advantaged/disadvantaged, etc., children have different benefits/costs of ECE?

• Does the structure of the family tax benefits/childcare subsidies affect participation in ECE?

• Would financial incentives, non-financial incentives, nudges, etc. increase participation rates in ECE?
School education

• Does the provision of information (e.g. *My School*) increase the per cent of children who don’t attend their local school?
  • Does this school choice improve/worsen the outcomes of those children who do/do not attend a different school?

• Does the child’s experience at school (racism, bullying, etc.) affect their outcomes?

• Does attendance at an academically selective school improve outcomes?

• Does attendance at a boarding school increase the chance of completion or post-school attendance of Indigenous children from regional/remote areas?

• Does the hours of homework set for a child affect their outcomes/wellbeing?

• What are the effects of linking welfare to school attendance?
• Does advice given to students affect the decision to undertake university or VET education?
  • Does it matter when that advice is given and who gives the advice?

• Does working whilst studying affect outcomes?

• Are there types of training that increase the chances that someone who is long-term unemployed will obtain employment?

• Does the type of instruction (face-to-face/online/flipped) affect acquisition of knowledge?

• Does having lecturers with a focus on research affect student learning?

• Are there interventions that minimise the effects of gender, ethnicity, socioeconomic background, etc., on participation or completion of post-school education?
The **Department of Education and Training** is responsible for national policies and programmes that help Australians access quality and affordable early child care and childhood education, school education, higher education, vocational education and training, international education and research.

The Australian Government **Department of Employment** is responsible for national policies and programmes that help Australians find and keep employment and work in safe, fair and productive workplaces.

We (**Department of Social Services**) aspire to be Australia’s pre-eminent social policy agency. Our mission is to improve the lifetime wellbeing of people and families in Australia.

Our (**Australian National University**) focus on research as an asset, and an approach to education, ensures our graduates are in demand the world-over for their abilities to understand, and apply vision and creativity to addressing complex contemporary challenges.