



The hierarchy of evidence

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What's the idea?

With so much research evidence available, it can be helpful to use a hierarchy of evidence to help you make a judgement on how much weight to give different types of research.

What does it mean?

The hierarchy of evidence is an attempt to rank different types of studies based on the rigour of the research methods used. You can use this as a framework when searching for the best available evidence: you may start by looking at systematic reviews and, if they are not available, you may turn to randomised controlled trials and so on.

Remember, however, that all research has benefits and limitations.

» Systematic review & meta-analysis.

This is a review of existing research using explicit, rigorous research methods i.e. it critically appraises or analyses the evidence. This will often give you a good overview of the research landscape on a particular topic

» Randomised controlled trial.

This assesses whether a particular approach or intervention is effective by comparing the outcomes of children who experience an intervention with a control group of children who do not. It is randomised because the children are randomly allocated into the groups being compared

» Cohort study. This is where two or more groups of students are followed over time. Their outcomes are compared on the basis of their exposure to different 'interventions' (for example, free school meals), but the pupils are not randomly allocated

» Case-control studies. This is where pupils who have a particular characteristic are identified and then matched with 'controls' i.e. pupils who do not have this characteristic. The groups are then compared on the basis of what might explain any difference in the outcomes of the two groups

» Cross-sectional surveys. A representative sample of people are asked for their insights. They could be interviewed, surveyed or asked to take part in focus groups

» Case studies. A case study is an approach used to explore a particular

instance in detail. The instance has to have clear boundaries – it could be a lesson or scheme of work, for example – and it is studied in its natural setting with multiple sources of evidence being gathered. Case studies are often exploratory and their aim is not to draw conclusions about the broader population but rather to describe a specific problem or case in more detail. Sometimes case studies provide new ideas that are then followed up in larger studies.

What are the implications for teachers?

» Approaches at the bottom of the hierarchy often have a value if you are trying to find out how people experience a change/intervention

» The hierarchy is not absolute. A well-conducted observational study may provide more compelling evidence about a teaching strategy than a poorly conducted RCT

» The hierarchy focuses largely on quantitative methodologies. It is important to choose the most appropriate study design to answer the question, however. For example, it is often not possible to establish why individuals choose to pursue a course of action without using qualitative techniques, such as interviewing or focus groups.

WANT TO KNOW MORE?

- » Coe R, Waring M, Hedges L and Arthur J (2017) *Research Methods and Methodologies in Education* (2nd ed). London: SAGE.
- » Greenhalgh T (2014) *How to Read a Paper: The Basics of Evidence-Based Medicine*. London: John Wiley & Sons.
- » Yin R (1984) *Case Study Research: Design and Methods*. Thousand Oaks: SAGE Publications.