That's a claim!

Key Concepts for thinking critically about educational claims



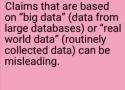


Fair comparisons of nave moderate, small or trivial effects, rather ne best basis for being confident about the effects of an than dramatic effects ntervention, but it is

BEWARE **Explanation** is Big data on "big data" (data fron

An explanation of how an intervention may work does not mean that how well it works.

not enough

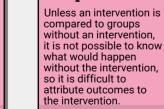


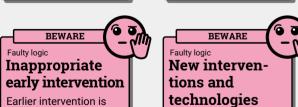


Common practice Widely used interven that have been used fo a long time are not necessarily beneficial.

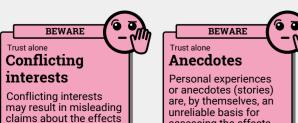
not necessarily better

of interventions.





technologies terventions that are new or technologically mpressive may not be etter than available ılternatives.



assessing the effects of interventions.



BEWARE Expert opinion Opinions of experts, authorities, celebrities or other respected ndividuals do not alone provide a reliable basis for deciding on the benefits and harms of



Correlation ≠

The fact that a possible

education outcome is

necessarily mean that

the intervention caused

BEWARE

All relevant

The results of single

tudies comparing

evidence

nisleading.

associated with an

Causation

the outcome.

BEWARE

rust alone Peer review and publication tudies that are peer-reviewed and published may not be fair comparisons.

BEWARE

of claims

Q

Comparison

comparison groups need to be similar to

groups

People in the

Statistical

significance

s not the same as

mportance.

tatistical significance

THINK 'FAIR'

Confidence

intervals

he lack of a

onfidence interval

can be misleading.

THINK 'FAIR'

Indirect

comparisons

here are many differen

eaching methods and

ossible interventions

ut they are rarely

the same studies.

No evidence vs.

No difference

The lack of research

r negative effect of an

same as evidence of "no

Underreporting

Inpublished results f fair comparisons

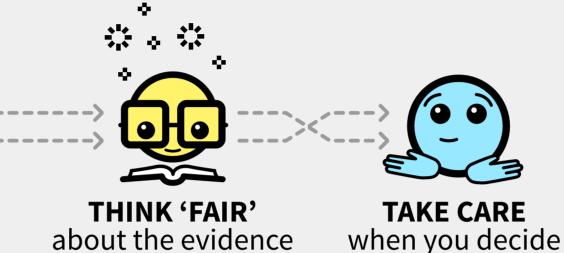
nay result in biased

ntervention effects.

ntervention is not the

THINK 'FAIR' nreliable summary Systematic | Reviews eviews of intervention

omparisons that do no se systematic methods can be misleading.





THINK 'FAIR'

earners in the groups eing compared should be treated similarly apart from the nterventions being ompared).

Verbal

descriptions

lifferent people.

Verbal descriptions of

be misleading. They car

mean different things to

bad basis

claims that are:

Too good to be true

Based on faulty logic

Based on trust alone

Similar measurement of outcomes Outcomes need to be neasured in the same way in comparison

THINK 'FAIR

Small studies

air comparisons

e misleading.

BEWARE of claims that have a

Many claims about the effects of

interventions are not trustworthy.

Often this is because the reason (the

You should be careful when you hear

basis) for the claim is not trustworthy.

vith few people or

utcome events can

outcomes Outcomes should be assessed using methods that have beer hown to be reliable

> **⊕**• THINK 'FAIR' Original groups earners' outcomes

THINK 'FAIR'

assessment of

Reliable

hould be counted in the roup to which they vere originally allocated

Circumstances

THINK 'FAIR' - and check

intervention comparisons

Evidence from comparisons of

interventions can be misleading.

evidence that is used to support

Unfair comparisons of

Uncareful summaries of

How intervention effects are

You should think carefully about the

claims about the effects of interventions.

the evidence from

Look out for:

interventions

comparisons

described

The results of studies nay not be applicable or transferable if the rcumstances in which compared are very lifferent from those

TAKE CARE

THINK 'FAIR'

ollow-up

cluded in the

is important to

veryone who was

mparison groups

easure outcomes in

dvantages and disadvantages of the

TAKE CARE

Practicality

The results of studies

may not be applicable or transferable if the

nterventions compare

are very different from

TAKE CARE

Advantages vs. Disadvantages

consider the potential benefits and harms,

It is important to

costs and other

ose of interest.

TAKE CARE and make good choices

Good educational choices depend on thinking carefully about what to do.

Think carefully about:

- What your problem is and what your options are
- Whether the evidence is relevant to your problem and options
- Whether the advantages outweigh the disadvantages

make sure that you understand what the problem is and what vour choices are.

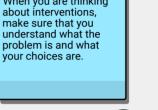
TAKE CARE Type of

People make lots of claims about the effects of interventions. How can we tell which claims are right or wrong? To do this, you need to look at what supports their claim – its **basis**. For example, someone's personal experience is not by itself a good basis for a claim about what is effective teaching. This is because we don't know what would have happened

To know if an intervention (like extending the school day) causes an **effect** (like improved attainment), the intervention has to be compared to something else (like not extending the school day). Researchers compare an intervention given to people in one group with something else given to people in another group. Those comparisons provide evidence – facts to support a conclusion about whether a claim is right or wrong. For those comparisons to be **fair**, the only important difference between the groups should be the interventions they receive.

A **good choice** is one that uses the best information available at the time. For education choices, this includes using the best available evidence of intervention effects. Good choices don't guarantee good outcomes, but they make good outcomes more likely.

www.thatsaclaim.org/educational



outcomes

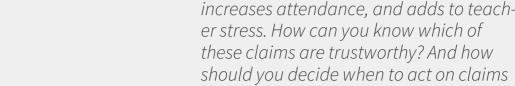
TAKE CARE

Context he results of studies may not be applicable of transferable if the ontexts in studies are interest to you.

TAKE CARE Confidence in the evidence

ecisions about whether or not to apply interver tions should be based on the strength of available evidence.

> nformed Choices Network



Introduction

like these?

What and how should we teach young people? There are lots of claims about what is and isn't effective and you have probably come across many of them yourself. A claim is something someone

says that can be right or wrong. For

example, there are claims that extending the school day improves pupils' learning,

An educational "intervention" refers to

example, restructuring the curriculum or

introducing a new teaching method. An

any kind of change to the practices

within a school that is intended to

achieve better pupil outcomes – for

effect is something an intervention makes happen – like improving pupil attainment or reducing the incidence of

problem behaviours.

TAKE CARE **Problems** and options When you are thinking

A systematic review of fair comparisons of interventions should measure outcomes th are important.

if that person had done something else.