Assessing claims in education – the ACE concepts

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Is there a profession filled with more disagreement among its members than teaching? This was a question posed on Twitter by lecturer in education at La Trobe University Emina McLean in October (https://twitter.com/EminaMcLean/status/1178879273127403520?s=03). Why, she mused, is there furious disagreement about such fundamental aspects of our profession as teaching reading, managing behaviour, assessment, inclusion, pedagogy and technology? And well might she ask. The EduTwitter community enthusiastically offered a multitude of responses to McLean’s question, leading to some more or less heated debates in the ensuing thread. Responses largely centred on: ideology; selective use of research evidence; a lack of understanding of research methods; design and its implications; the heterogeneity of classrooms; commercial interests; and the inherent complexity of the field.

These factors, together with exaggerated claims in (social) media, press releases and academic articles themselves (Huber et al., 2018; Sumner et al., 2016), have arguably led to the rapid rise and spread of educational claims, both on- and offline, about what is and isn’t effective, many of which you may have come across. For example, there are claims that inquiry-based learning is ineffective, that playing brain games can improve students’ executive functions, and that students learn less in larger classes. How can you know which of these claims are trustworthy? And how should you decide when to act on such claims?

A group of researchers from a variety of disciplines have come together to create a tool with key concepts that can help stakeholders in their fields to assess the basis of claims and support them in deciding whether to apply an intervention in their context. These concepts were originally developed for health (Oxman et al., 2018) and have since been adapted for an educational context, as well as a range of other disciplines such as policing or environmental studies (see Oxman et al., 2019, for further details). We, a group of educationalists under the banner of CEBE (Coalition for Evidence-Based Education), were involved in the development of key concepts to Assess Claims in Education (ACE), and it is the aim of this article to present these concepts and outline how they can help you to assess the validity of claims, determine the trustworthiness of comparisons and decide whether to adopt an intervention in your context. Hopefully this will be helpful in shedding some light on some of the underlying reasons for the high levels of fundamental disagreements in education.

The 37 key concepts are set out succinctly in a handy web-based tool, which has been designed for use in staff development sessions as well as by individuals. You can access the key concepts, further information and many related resources at thatsaclaim.org/
It is important that studies provide detailed information about the exact measure they used and how much participants have (or have not) improved.

Comparisons

As mentioned above, to know whether an intervention has led to 'dramatic' results, we need to consider the context and whether the advantages are likely to outweigh the disadvantages. For example, if an intervention has led to moderate effects but is highly time-consuming and expensive, it may be worth considering an alternative.

In sum, when considering whether an intervention is appropriate for your context, take care! Consider what your problem is, what your options are, whether the evidence is relevant to your context, and whether the advantages outweigh the disadvantages. Next time you encounter a claim about an education intervention online or in the staff room, beware of claims that do not have a solid basis.

Think Fair and check the evidence from intervention comparisons.

Take Care and make good choices.

Hopefully, this will help clear up some of the controversy surrounding claims in education. We hope you find the website (thsacumall.org) educational and would welcome your feedback. 