

Evidence in education

Charles Underleider on discerning what matters in a post-truth world

The Oxford dictionary has conferred 'word of the year status' on the neologism *post-truth* for reasons that are likely obvious to many. The *Oxford Dictionary* defined post-truth as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief." As an example of usage, the dictionary uses: "in this era of post-truth politics, it's easy to cherry-pick data and come to whatever conclusion you desire." In other words, concern for the truth is no longer a consideration. The *Washington Post* quoted Oxford Dictionaries' President Casper Grathwohl as saying, "Fueled by the rise of social media as a news source and a growing distrust of facts offered up by the establishment, post-truth as a concept has been finding its linguistic footing for some time."

Educators in particular should be vigilant about promoting the quest for truth and the evidence upon which truth depends both for the students for whom they are responsible and for themselves. It is though the cultivation of respect for evidence as reasonable grounds for belief and action that educators safeguard society from tyranny. Educators who do not respect evidence with regard to their own practice are poor models for students. They are unlikely to encourage students to respect evidence or to use it.

At its worst, post-truth means "I don't need evidence to come to a conclusion," which is a rejection of evidence even when evidence is available. Another version is: "I dis-

trust and reject the evidence that you use. I don't deny that there may be evidence, I just deny the evidence you cite in support of your claims. I will assert my claims even in the face of the evidence you present." And a third version of post-truth is, "I prefer my evidence to the evidence that you cite in support of your claim and will draw my conclusions on the basis of the evidence I prefer." This is what some might call alternative truth.

What is evidence?

Evidence is the available body of facts or information indicating whether a belief or proposition is true or valid. We use evidence to show the claims we make are reasonable or that our actions are right. If someone is committed to seeking the truth, they cannot cherry-pick the data that will support their preferred conclusion(s) or justify the course of action they wish or have pursued.

Those committed to seeking the truth will suspended judgment until a claim is supported by the evidence. In the post-truth world, conclusions are often made before evidence supporting the claim is 'discovered' and contrary evidence debunked.

Evidence requires objective evaluation, meaning that the evidence that something is true should be independent of individual proclivities, emotions, and interpretations. Evidence cited in support of claims should be subject to independent verification. The evidence should have been gathered using methods sufficiently well-described and well-accepted that others can apply them to arrive at an independent appraisal of the claim.

Those committed to truth seek the facts that would challenge the claim they wish to make to ensure that claim will withstand close examination and challenge. Experts seek rigorous review by their peers to ensure that their work withstands close scrutiny.

People – especially people who claim expert (professional) status – should not do something that is contrary to the available body of evidence without justification. Professional judgment does not refer to the judgement of the individual practitioner. It refers to the collective judgment of professionals who are competent to examine dispassionately the entire body of evidence that has been accumulated. Such examination takes much into account, among them: how the topic or issue was defined; how the evidence relevant to the topic was gathered; how it was analyzed; and, whether the conclusions drawn are supported by the evidence collected. In assessing the entire body of evidence available on the topic, educators should seek to determine if there is rational convergence of opinion among those qualified to appraise the evidence, taking into account its quality and its strength.

Citing research related to one's beliefs or actions is a common form of cherry-picking evidence to support one's inclinations or behaviour. It is not unusual to read or hear a ministry, school board, or school proclaim that an initiative or policy is evidence-based because someone has found a few studies that seem broadly related. Those making claims about what

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one should do or what one should believe should be able to show the specific link between the evidence and the initiative.

The Fraser Institute is a good example of an organization that uses evidence selectively. It cherry-picks data and presents it in a manner that will support the conclusion it seeks. To destabilize support for public services in general, and public education in particular, the Fraser Institute is selective about the evidence that it uses and the manner in which it presents the evidence to give the impression that public education is not doing well. The studies produced by the Fraser Institute lack objectivity because the Institute's views are guided by ideology rather than evidence.

How much evidence is sufficient?

Much educational research has been carried out by individuals who have a personal stake in the outcome of the study. Most investigators do

not consciously attempt to influence the outcomes of a study, but nonetheless may inadvertently influence the results through the decisions they make about the research methods they use or the inferences they draw. This threat to objectivity warrants looking beyond single studies to the larger body of work.

It is regrettable that there are few, if any, follow-up educational studies that replicate an initial study to determine, for example, whether the same result was found under the same conditions or whether the result of the initial study applies to contexts or to students who differed from those in the original study. In the absence of such replications, looking across the body of work provides valuable, though imperfect, evidence about such matters.

We are fortunate that it has become increasingly common to con-

duct systematic reviews of evidence or meta-analyses of evidence. Many such reviews are available to educators from the What Works Clearinghouse, the Campbell Collaboration, Eurydice web sites, from publications such as the *Review of Educational Research* or Hattie's Visible Learning series, and from systematic reviews published in journals. Systematic reviews are not flawless, but they provide a foundation for claims about policy and practice that single studies or groups of studies selectively chosen to suit the policy or practice one wants to pursue do not.

Why evidence matters.

Tyranny becomes more likely in a post-truth environment where prominent persons and institutions manifest a blatant disregard for the truth, little respect for evidence, and antagonism toward dissent. One of the purposes of public schooling is to cultivate the ethical commitment to truth and respect for evidence. And the responsibility of doing so falls upon educators. 

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“You know what I just realized? We just painted Port Alberni! It's a perfect representation, as if you're looking up the main street.”

Watts could see it right away as well.

“I feel like I really connected with Connie,” Jordy said. “It was just that perfect level, artist to artist. She understood what I was seeing.”

The unveiling of the murals in February was a big community event. Samuel took on the task of handling the details. He led the Nuu-chah-nulth protocols and invited representatives of Tse-shaht and Hupacasath to welcome people to their traditional territories.

“I've never seen so many people in the school,” Jordy said. Friends, family members, district staff, representatives of the Nuu-chah-nulth nation, and members of the community who heard about the project were in attendance.

Elders and many others were invited to speak and gifts were presented to those who worked on the project.

Simon Lucas told the gathering that he was glad that there are people who can take the stories of Elders and translate them into art.

Seredick told the students, “Your stories and observations will live on through these paintings. There's a comfort in knowing that we have shared experiences. All of us are represented.” 

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