**ONE PERSON’S DATA IS ANOTHER’S NOISE -THE POLITICS OF RESEARCH**

The media does the South African public a great disservice telling by manipulation a half truth of schools. Research finding and recommendations are sensationalised. We don’t always hear about the research methodology and whether it is applicable and replicable in South African context. The assumptions made by the research design are seldom questioned and the relationship between the research question, the design, its finding and recommendations is often neglected.

The purpose of research is to clarify and contribute to a better understanding of the world. The media is propagating part of a truth in a very irresponsible manner always seeking sensationalism in order to profit off the public’s perceived lack. Research is a game with very specific rules. The media neglects to inform us of these rules so the public may be the judge.

Social science research is not exact and adopted the principles of observation, data collection and experimentation. The amount of variables at play is mostly impossible to individually isolate or manipulate, making the validity and credibility of social science research dubious at the least. In most cases it raises more questions for further investigation than definitive answers.

In preparation I dusted a book I read “The Universe and the Teacup – The Mathematics of Truth and Beauty” by Cole a science writer and editor. She argues that “we miss a great deal because we perceive only things on our own scale...so complexity, too, changes with scale”. Demonstrating her point Cole used the following illustration “pointed out that more than half of the women on death row had murdered their husbands, while only a third of the men on death row had murdered their wives. What’s neglected to say was that there were a total of 7 women on death row and 2400 men”

|  |
| --- |
| Research often makes use of the input-output-outcomes model of analysis. **Outputs** relate to “the product of the activity” and o**utcomes** refer to "what difference” is made. “The assumption is that the activity needs to be delivered as intended before the expected outcomes can occur. We see this as part of measurement of quantity and quality of implementation”. Outcomes and outputs are fundamentally different in the design and should not be conflated, an error which often occur. The education system is often judged entirely based on its outcomes. This logic model is not simply one directional from input to outcomes. However an analysis of performance in the opposite direction from outcomes to inputs seldom recognises the contextual factors impacting on the analysis. This is ineptitude, neglect or misinformation on the part of the media. This I refer to as the big leap into false thinking. The media focus on symptomatic factors instead of the root cause is another error in question. |

Interpreting the world Cole comments that “one person’s data is another person’s noise, and knowing which is which in any particular instance is not a simple matter. Like so much else about information, the difference between signals and noise frequently depends entirely on context.” Mathematics shows us that “the truth can be highly counterintuitive and that sense is hardly common”. It is the cornerstone of research and helps us to quantify and compare. Cole argues that “since mathematics is so good at exposing the truth, it is curious how often it is used to perpetuate misunderstanding and lies and many different kinds of truth lie in numbers”.

Another way in getting to the truth about causes is correlation “that is, figuring out which things happen together. Correlation does not necessarily mean causation”. Care must be taken when correlations between cause and effect are made because“silly correlations find their way into all kinds of seeming well-reasoned arguments - causes and effects can even get reversed”. To further complicate matters “comparing more than one factor always complicates the issue”.

Research, is a very powerful tool getting to the truth however “many times people argue about right and wrong when really what they are contesting is different reference frames and most people aren’t aware that they walk around carrying a frame of reference at all”. It has the power to “clear up “muddy relationship, obscure and distorts what was seemingly clear” and as much as the big picture allow you to see “invisible patterns and connections” the detail on the ground is equally valuable as it gives another perspective of the truth.

The supposition of the tipping scale speaks of accumulative small actions bring that about huge and unexpected changes. Tipping the scale of our magnitude in our favour requires of us to work consistently and patiently. The public are advised to question research findings and recommends that “you merely need the confidence to ask the questions that were probably on your mind anyway. Such as: how do you know? Based on what evidence? Compared to what else?”