

## UNIB10006 – Critical Thinking with Data Notes

### THEME 1 – ‘Finding Data as Evidence’

#### Topic 1: Anecdotes, Intuition and Evidence

When considering research, we must question

- how the study was conducted
- experimenter/participant bias
- how the results were collated and communicated
- causality: does the evidence justify conclusions?

We therefore have to distinguish ways of recognising good evidence (that is quantitative rather than intuitive), how we can display this evidence in a clear manner, and how we can critique this evidence, in order to improve our abilities to collect better evidence in the future.

#### *\*Case Study\* - Death Toll in Iraq*

*Aimed to determine how many civilians died due to the invasion of Iraq*

*However, we would need to assess;*

- *the meaning of the question ( defining key terms such as civilian)*
- *the motives for asking the question (and how they may impact the results)*

*Data was collected through*

- *census and official government death records*
- *surveying households*
- *morgue/cemetery records*

*Different surveys obtained vastly different figures by using different methods for collecting data.*

#### *\*Case Study\* - 1854 London Cholera Epidemic*

*Dr John Snow observed cases of cholera surrounding a well, collected data and proposed water from the well as the cause of the epidemic.*