Collecting Field Data Electronically

WOMEN IN AGRI-TECH
Increasing participation in the future of farming

FX | AGRICULTURE AUSTRALIA'S GREATEST EXPERIENCE

Rabobank

CQUniversity AUSTRALIA

BE WHAT YOU WANT TO BE
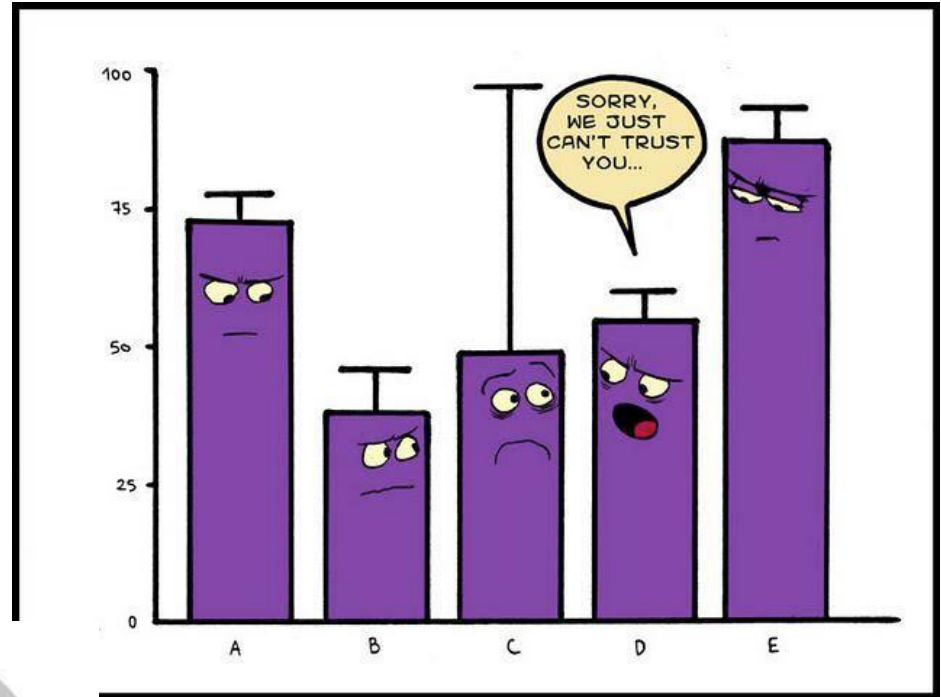cqu.edu.au

Data Tells a Story

- Start with a good question
- Know what can be measured and how to measure it
- Collecting data needs to be simple – to avoid errors, fatigue and frustration and time
- Reducing the handling of data reduces the likelihood of making errors

Concepts for students

- How to measure
- How to record data
- How to measure change
- How to identify outliers
- Mean, mode, range
- How to compare data
- How to tell a story with data
- Validating anecdotal evidence
- Experimental design

And ultimately:
How to make informed
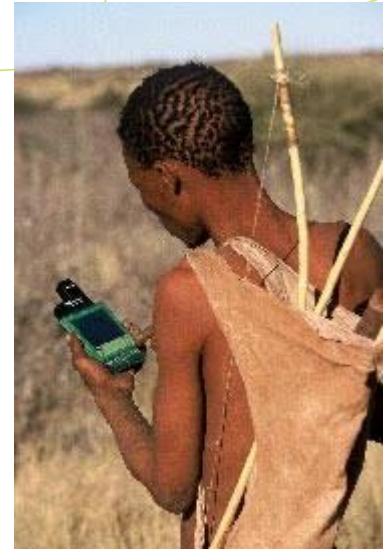**decisions using data.**

Ignaz Philipp Semmelweis (1818–65)

Cybertracker

- Software developed for non literate African tribesmen to track wildlife

- Free for all users

- Easy to collect data

- GPS & Photo

- No need for internet or cellular connection to collect

- Exports to excel

- Exports to Google Earth and ArcGIS https://www.youtube.com/watch?v=sG9rnLPbEqs

Benefits and Uses in Classes

- Relatively quick and easy to make an application and easy to edit – once you know how
- Works on android devices offline
- Barcode can be used in replace of entering data – reduces errors and is a fun novelty
- Icons can be used
- NO ENTERING OF DATA

How it is used at Taminmin College

- CHICKENS: The year 7 Ag program runs for 10 weeks.
- Each student is assigned a day old chick.
- Once or twice a week they measure the chickens height, wingspan and its weight.
- They record this data manually on sheets and using cybertracker.

mistake
+
correction
=
learning

CHALLENGES

ENGAGEMENT

EXTENSION

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GOATS

- The year 9 Ag program requires the students to take care of the schools herd of Boer goats
- The students use cybertracker to record goat weight
- Students use cybertracker to assess the worm burden of each goat

MANGOES

- The year 8 Ag program covers horticulture. The students will be a part of a mango trimming project where they will trim the branches of different trees at different times of the year to see what impact it has on fruit production.

Technology in Agriculture

- This semester Taminmin has offered a new subject for a year 9/10 composite.
- Students use the chicken and goat data sets to learn how to use excel
- They will learn how to build a cybertracker app
- They will develop their skills in conducting trials
- They will then hopefully work with a farmer to build a cybertracker app specifically for on farm purpose

	# of entries	Average of height	Range height	Average wingspan	Range of wingspan	Average weight	Range of weight
Class 1	14	9.57	84.5	11.07	80	43.78	32-55
Class 2	7	10.22	64.4	15.28	224	44.78	39-48
	# of entries	Average of height	Range height	Average wingspan	Range of wingspan	Average weight	Range weight
Class 1	16	9.5cm	6.5	12.1875	21	44.812	28
Class 2	17	10.46875	11	13.8125	9	44.375	26

Simple Forms

- There is lots of other software that can do the same as cybertracker
- Free, easy and user friendly
- Example is Microsoft forms
- You can check response in real time
- Need internet access
- Easy for middleschoolers to make