**Creating operational definitions for research is like driving a car**

Many students struggle to appreciate the importance and draft quality operational definitions for research purposes that facilitates quality observation and measurement of behaviour and replicated. This is second nature for many experienced researchers, and it is a concept that I have struggled to convey to students. Here is how I broke down this skill for new learners.

In class activity:

**Start** with illustrating why we need an operational definition in the first place:

* 1. Ask everyone to write a definition for a behaviour (e.g., flirting).
  2. Have them compare their definition to a friend and ask pairs to raise their hands if they matched.
  3. Reflect together on how we cannot rely on others knowing what we mean.

Important notes:

* This is especially true for many terms used in psychology that often have lay usage that can be quite different from what professionals mean when they use the term just like we might observe many different ideas about what it means to flirt.
* Many psychological constructs including behaviours are often not directly observable (e.g. anxiety) or maybe a mixture of observable and unobservable features (e.g., real behaviour change, feelings, thoughts, patterns of behaviour).
* Researchers are often required to select what aspects of a construct we can reliably observe and use these as an indicator of the construct that we are interested in.
* Researchers use operational definitions to formalize how they will measure a construct variable in a study.
* Operationally defining a variable ensure that researchers reliably measure what they intend to = good quality measurement + replicability of methods.
* There is not one correct operational definition for any concept variable. An operational definition simply outlines the parameters that define how you will detect/measure something in a particular research project. It may be based on theory, past research, practicality (e.g., ease of measurement, cost, access to data).

Formal definition according to American Psychological Association: *An operational definition is a description of something in terms of the operations (procedures, actions, or processes) by which it could be observed and measured.*

1. A picture containing text, screenshot, font, graphics

   Description automatically generatedIn pairs, reflect on their original definitions based on the following check list:

|  |
| --- |
| * + Is it an **observable event** (i.e., can an observer see, taste, touch, hear, smell the behaviour/event)?   + Is it **appropriate** (**i.e.,** is it a good direct or indirect indication of the underlying construct of interest)?   + Is it **clear** (i.e., can someone use the definition to decide if the behaviour did/did not occur)?   + Is it **complete** (i.e., does it contain all of the information needed to decide if it did/did not occur without relying on assumptions or outside sources)? |

* 1. Ask students to improve upon their original definition until they can agree on an operational definition that checks all the boxes.