

#### How can ontologies be used in behavioural science?

#### Introduction

This module is part of the Behaviour Change Intervention Ontology (BCIO) online training programme whose purpose is to help potential users of the ontology to understand what it is, how it works, how to use it in research, and for those who are interested, how to develop and improve it.

This module presents some of the ways in which ontologies may be useful in meeting challenges in behavioural science. While Module 1 describes ontologies and their uses in general terms, this module focuses on their specific relevance for behavioural science and in particular, to behaviour change interventions.

#### Four main uses are:

- 1. Interpreting descriptions of behavioural science studies,
- 2. Writing descriptions of behavioural science studies,
- 3. Connecting evidence across domains, and
- 4. Thinking clearly about behavioural science theory and evidence.

This module consists of 1 video of 13 minutes in duration.

Here is a link to the video.

### **Prior training**

Before doing this module you are advised to view Modules 1: What are ontologies and why are they useful?

# **Learning objectives:**

After the training you should be able to:

- 1. Describe uses of ontologies for describing behaviour change interventions.
- 2. Describe uses of ontologies for interpreting behaviour change intervention reports.
- 3. Describe challenges of behavioural science that might be addressed using ontologies.

#### **Notes and explanations**

This module discusses the ways in which ontologies can be useful in the behavioural sciences but does not address concerns people may have about their use. For discussion of issues raised by the use of ontologies in behavioural science see the following paper:

Michie S, Hastings J, Johnston M et al. Developing and using ontologies in behavioural science: addressing issues raised [version 1; peer review: 1 approved with reservations]. Wellcome Open Res 2022, 7:222

# Links to resources

HBCP website: <a href="https://www.humanbehaviourchange.org/">https://www.humanbehaviourchange.org/</a>

BCIO website: <a href="https://bciontology.org">https://bciontology.org</a>

BCIO Search website: <a href="https://bciosearch.org">https://bciosearch.org</a>

Ontology Lookup Service: <a href="https://www.ebi.ac.uk/ols/index">https://www.ebi.ac.uk/ols/index</a>

Qeios publishing platform: <a href="https://qeios.com">https://qeios.com</a>

Twitter: @HBCProject

Publications: <a href="https://wellcomeopenresearch.org/collections/humanbehaviourchange">https://wellcomeopenresearch.org/collections/humanbehaviourchange</a>

Open Science Framework: <a href="https://osf.io/efp4x/">https://osf.io/efp4x/</a>

Github: <a href="https://github.com/HumanBehaviourChangeProject">https://github.com/HumanBehaviourChangeProject</a>