**Neon Training Session Summary**

Recently, Eliot attended the first two sessions of NEON’s ‘Access Academy Training - Evaluating Outreach Work’ workshops. The first session set the scene with regards to evaluation outreach work by giving a brief history of widening participation in Higher Education and exploring some of the evaluation challenges in the current WP landscape.

* Late 1990s – Dearing Report & pilot initiatives on widening participation
* Early 2000s – Excellence Challenge and Partnerships for Progression
* 2004 – Aimhigher
* 2006 – Lifelong Learning Networks
* 2011 – End of Access Agreements
* 2015 – National Networks of Collaborative Outreach
* 2017 – National Collaborative Outreach Project

The current WP landscape was defined as a mosaic of institutions/organisations delivering a range of projects of differing sizes, lengths to different audiences. Which presented some difficult questions:

* How do you distribute evaluation resource across them?
* What do you need to learn about them all?
* Who are trying to prove impact to?
* What is the messaging you are trying to achieve?

The NCOP project is one attempt to reduce the number of separate pieces in the mosaic, by joining up individual organisations into larger consortia working over a larger and more varied geographical area.

We were introduced the ‘OFFA standards of practice’ with regards to evaluation:

* OFFA Level 1: The HEI can provide a narrative to motivate its selection of outreach activities in the context of a coherent outreach strategy
  + Evidence: The HEI can refer to evidence of impact elsewhere and/or in the research literature on outreach effectiveness
* OFFA Level 2: In addition to a narrative account, the HEI has collected data on impact and can report evidence that those receiving an intervention treatment have better outcomes, though this does not establish any direct causal effect
  + Evidence: Quantitative and/or Qualitative evidence of a pre/post treatment change or a treatment/non-treatment difference
* OFFA Level 3: The HEI has implemented an evaluation methodology which provides evidence of a causal effect of an intervention
  + Evidence: Quantitative and/or Qualitative evidence of a pre/post treatment change on a treated group relative to an appropriate control or comparison group

We then began to discuss the types of evaluation and analysis available to use in outreach. We were introduced to qualitative, quantitative and ‘triangulation’ (mixed methods) of data collection and discussed the relative merits of all 3 approaches. We also discussed concepts such as causality (how to prove that A causes B), validity and reliability.

There was a more general discussion around how different stakeholders may be after different data at different levels and that there may need to be multiple report copies and styles to meet these needs.

The second session of this training focused in on quantitative techniques. We were presented a continuum of ‘weak’ to ‘strong’ research design, with weak design having characteristics such as data collection at only one time point, non-randomised groups and data collected at a nominal level. The characteristics of strong design generally involved randomisation of participants into treatment and control groups, with data collected pre and post an intervention and outside variables accounted for either in the analysis or through the design of the research itself.

Within quantitative statistics there are 2 broad categories that analysis can fall into:

* Descriptive: Summary information for a specific data set, e.g. mean, median, mode, standard deviation etc.
* Inferential: Using specific analysis techniques on a data set to be able to infer findings on the wider population. Generally, these look at whether data is related to, or different from, another dataset.

We were then introduced to statistical significance (what is the probability that the results of inferential analysis are due to random chance) and effect sizes (how pronounced is the difference between 2 group mean scores).

Causality is a key component of quantitative statistics. This refers to being able to demonstrate that the intervention that you have run has had produced the results found and they are not due to any external influences on participants. Some of the ways to determine causality are:

* Strength - what increase in cases of the potential effect or outcome is observed when the potential cause is present? Strength here refers to differences in the instances of the effect or outcome, not the statistical strength of any association which had to be ‘significant’ and not down to chance before looking at a hypothesis of causation.
* Consistency - Has the finding been repeatedly observed, by different people, at different times and under different circumstances?
* Specificity – How specific is the potential effect? Is it limited to particular groups? Is the potential cause associated with other outcomes? A high degree of specificity can lend great support for a causal hypothesis, but such clear, simple and distinct one-to-one relationships are rare.
* Temporality - In what order did the events happen? An effect needs to come after a cause.
* ‘Biological gradient’ – Is the effect stronger where the potential cause is stronger (more intense, longer duration of exposure etc.), a so-called dose-response curve?
* Plausibility - Is there a plausible theory behind the hypothesis of causation?
* Coherence - Does the hypothesis make sense given current knowledge and related observations?
* Experiment - Is there any experimental evidence specifically connected to the hypothesis?
* Analogy– Are there any similar causal relationships?

Over the next month, Eliot will attend the final two sessions, which will be covering qualitative research and the dissemination of research findings. EMWPREP News will provide a summary of these topics in the next issue.