



**Cambridge
Assessment**

**What lessons from current working practice
can be applied to big data? Identifying GCSE
equivalents across many jurisdictions**

Conference Paper Abstract

Nicky Rushton

Presented at the 44th International Association for Educational
Assessment (IAEA) Annual Conference, Oxford, UK, September 2018

Author contact details:

Nicky Rushton
Assessment Research and Development,
Research Division
Cambridge Assessment
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA
UK

Rushton.N@cambridgeassessment.org.uk

<http://www.cambridgeassessment.org.uk>

As a department of Cambridge University, Cambridge Assessment is respected and trusted worldwide, managing three world-class examination boards, and maintaining the highest standards in educational assessment and learning. We are a not-for-profit organisation.

How to cite this publication:

Rushton, N. (2018, September). *What lessons from current working practice can be applied to big data? Identifying GCSE equivalents across many jurisdictions*. Paper presented at the 44th International Association for Educational Assessment (IAEA) Annual Conference, Oxford, UK.

Abstract

Big data uses the power of modern technologies to harvest and collate information about anything that might happen in education, from children's keystrokes to researchers' search terms. Datasets so created could be used for comparisons across groups of students, in different countries or years. However, many researchers are still working towards utilising big data of this type.

Comparisons are currently made of many aspects of countries' education and assessment systems. Researchers making these comparisons often use written data to inform their judgements, yet the data does not exist in a convenient database. Instead, it consists of numerous documents drawn from grey literature and websites as well as academic literature such as journal articles. There are many potential sources and the issues encountered whilst using them may be useful in illuminating what is likely to happen when big data is readily available in this context.

This presentation will consider how datasets can be created through disparate sources to gather information, taking the example of a project to investigate equivalents to England's GCSE assessments in 132 jurisdictions around the world. The information required for this project existed in many reference points ranging from well-respected websites run by organisations such as Eurydice and UNESCO, international comparison websites, ministry of education websites and school websites. The advantages and disadvantages of these sources will be discussed, and recommendations made about their suitability in different circumstances. Limitations of the data sources will also be discussed, such as relying on data gathered by other people, and the difficulties associated with providing a snapshot in time rather than an up-to-date reflection of current practice.

The project investigated a vast amount of information. The difficulties faced in analysing the data and presenting the findings meaningfully are similar to the problems researchers may find in future analysis of big data.