

The Evidence Framework Approach:

Analyst's Note for Applying the EQQ

Introduction

Reference AN1 provides a full technical description of the Evidence Framework Approach (EFA) which is consistent with the UK pan-Government-Department Aqua Book [Reference AN2] which was published in early 2015 as guidance on accomplishing analysis with evidence that is fit for purpose, i.e. is of appropriate quality. It uses specific descriptors for the key stakeholders referring to the Commissioner, the Analyst and the Analytical Assurer. The first two roles map on to the more generic roles of Customer and Analyst. The third role is that of quality assurance for the study.

This document provides guidance on applying the Evidence Quality Questionnaire (EQQ) as part of evidence evaluation and assessment activities. Materials to support activities within this document are available via the [Dstl SharePoint site](#) or on CatalyST.

EQQ Introduction

The Evidence Quality Questionnaire, or EQQ, is designed to be used as a handrail to assess the quality of the process for evidence generated by a study to support a particular decision or problem. The questionnaire provides a framework for assessing the quality against a number of criteria, helping users to understand how the evidence should be interpreted and identify areas for improvement. The questionnaire is structured around the mnemonic RIGOUR as used in the Aqua Book and has sections corresponding to phases of a study as described in Reference AN3¹.

Benefits

There are many different aspects of quality to consider during a study, which can be grouped into three categories; quality of process, quality of content and quality of outcome². The EQQ provides a structured framework for the Analyst and Analytical Assurer, to help keep the study process 'on track' in terms of quality, making sure that the analytical team are thinking about the right things in order to generate good quality evidence. The structure and criteria allow users to accurately assess the quality of the evidence generation process throughout the life of a study and identify areas that might affect the quality of the evidence.

RIGOUR factors

Each section of the questionnaire is structured around the mnemonic RIGOUR. For a description of each category see Reference AN2.

¹ Although the reference has a land analysis context the stages are considered generic.

² See Reference **Error! Reference source not found.**4 for an explanation of the three aspects of quality.

Using the EQQ

The EQQ is made up of three separate questionnaires, with each questionnaire applied according to the study phase underway. Within an analytical study these are generally a Design/Plan phase, an Execute phase and an Analyse/Exploit phase.

When using the EQQ to assess evidence quality for a study, the Analyst should review the corresponding section of the questionnaire at appropriate points in the study. This may be done on an individual basis or by the study team as a group to develop shared awareness of the project. The benefits of the EQQ are gained through the process of completing it; it is not designed to be used to measure projects against one another.

Each section contains a number of statements about the study or process being followed. The Analyst should consider each statement in turn, deciding for each the extent to which it is true for this particular study. They can then choose the response that best reflects this judgement.

The completed sections of the questionnaire should be discussed periodically with the Analytical Assurer for the project. This will help identify potential issues as they arise.

The three study phases are outlined below.

Design/Plan Phase

At the beginning of a study, the team must shape the requirement in order to design an approach. At this stage, it is important that the needs of the Commissioner are explored and understood, including the business criticality and purpose of the analysis. Obtaining the perspectives of appropriate stakeholders is important. “Shaping the requirement” is not “situating the appreciation” - all problems are not nails just because you have a good hammer to hand.

You should complete this section of the EQQ during the planning phase and discuss it with your Analytical Assurer as part of their review of the study plan. This will ensure that the correct steps have been taken in devising the plan.

Execute Phase

The Execute phase of a study covers the conduct of the experiment and the production of data for analysis. During this phase, it is important to implement the planned approach in a way that is meaningful and relevant to the purpose of the study, and to the required level of precision and accuracy.

You should complete this section of the EQQ during the execute phase and discuss it with your Analytical Assurer as part of regular project reviews. This should help to identify potential issues with the data collection so that they can be resolved before the next phase.

Analyse/Exploit Phase

The third phase of the study begins with the analysis of the data produced in the previous phase to provide the evidence base. It is also essential that the results are exploited as part of this phase.

You should complete as much of this section of the EQQ as possible during the analyse phase and discuss it with your Analytical Assurer as part of their review of the final product(s). You will not be able to complete some of the questions until after delivery to the Commissioner; complete these in conjunction with your Analytical Assurer as soon as possible.

References

- AN1. The Evidence Framework Approach: Practical Ways of Thinking About Evidence, Pearce, PV, DSTL/TR098527 1.0, 31 October 2016.
- AN2. The Aqua Book: Guidance on producing quality analysis for government. HM Treasury, 2015.
- AN3. Land Handbook: Force Development Analysis and Experimentation. DG Capability, Army, 2014 [Unclassified].
- AN4. General Concepts of Quality for Discrete Event Simulation. Robinson, S. European Journal of Operational Research, 138, 103-117, 2002.