International School on Research Impact Assessment

GLOSSARY

Version 2.0

Terms, definitions and acronyms commonly used in the School

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International School on Research Impact Assessment (ISRIA) 2014
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Developing a Common Language

Introduction

Developing a community of practice in research impact assessment (RIA) requires the use of a common language to achieve a shared understanding. This glossary provides definitions of terms and phrases that are commonly used throughout the International School on Research Impact Assessment (ISRIA; the School). In so doing, the ISRIA Glossary aims to facilitate effective communication through a shared use and understanding of these terms and phrases.

The Glossary outlines the method used in its development and also highlights documents in the ISRIA Toolbox in which several Glossary terms are used. The Glossary also includes:

- Key terms and definitions
- Acronyms
- Source of references for the terms used in the Glossary

The Glossary aims to improve clarity and minimize misunderstanding among ISRIA participants when communicating with each other about concepts and theories of RIA. It can be also be used as a reference for several tools in the ISRIA Toolbox that were designed based on best practices in order to increase participants’ skills and capacities in RIA planning.

The Glossary does not aim to become the standard lexicon for RIA internationally, since each country, region, practitioner and organisation are likely to want to use language that aligns with their particular context, experiences and existing approaches. Nonetheless, it is anticipated that this Glossary can provide some shared understanding of important terms and phrases that underpin RIA wherever it is put in place, thereby supplementing the specific language used across organisations internationally.

Method

The Glossary was developed from a collection of terms and phrases in existing influential glossaries and documents (see Sources). Given the international focus of the School, careful consideration was given to sources that are relevant on an international and/or national level rather than focusing on regional sources. In particular, some of the more common sources that were used to inform this Glossary were published by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC), the Environmental Protection Agency (EPA) in the United States, the World Bank, RAND Europe, and the United States Agency for International Development (USAID).

Each term and associated definition in the Glossary was also selected based on relevance to, and in alignment with, the School’s curriculum and materials as deemed by the School Director and Programme Director. The terms, definition, and sources were also reviewed for accuracy by the Research Librarian at Alberta Innovates – Health Solutions. Please note: for consistency, the spelling of
some words have been changed from how they appear in the source material to how they appear in the Glossary (i.e. porgramme instead of program, organisation instead of organization). This does not alter the definition.

As illustrated in Figure 1, the source of each term is referenced after the definition for the term. ISRIA served as the source for terms that were used in the School in more of an operational nature (e.g., programme stage of development). Where there are terms that can be used interchangeably for a concept, both terms are referenced by including the word “see” to denote the preferred term and the words “see also” to identify the related (but not preferred) term. For additional clarity, the preferred term is also marked with an asterisk (*) in the list of terms in the Glossary. Square brackets (i.e., “[ ]”) were also inserted into the definitions of some terms in order to clarify the meaning of term provided by the source. If additional clarification was required, a “note” was placed after the definition and source.

Figure 1. Anatomy of a definition

<table>
<thead>
<tr>
<th>Term</th>
<th>Stakeholders: Agencies, organisations, groups or individuals who have a direct or indirect interest in the development intervention or its evaluation. (OECD-DAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of definition</td>
<td>Note – stakeholders can have different roles in the RIA. See also “Beneficiaries”, “Sponsors”, “Partners”, “Reach”, “Target group”</td>
</tr>
</tbody>
</table>

“See” refers to the preferred term; “See also” refers to related term(s)

ISRIA Toolbox

The ISRIA Toolbox is composed of several documents (‘tools’) that contain terms that are outlined in the Glossary. As several of these tools are used when developing an RIA Plan, the Glossary can serve as an important reference document to assist in developing a shared understanding of terms used within the RIA Plan among the primary assessment stakeholders. Specifically, the tools in the toolbox that are used for the development of RIA Plans are:

- Research Impact Assessment Plan
- Research Impact Assessment Plan – Guidelines
- Research Impact Assessment Plan – Summary Matrix
- Research Impact Assessment – Implementation Work Plan
Glossary of Key Terms

**Accountability:** To show that money and other resources have been used efficiently and effectively, and to hold researchers to account. (RAND Europe)

**Activities:** Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources are mobilized to produce specific outputs. (OECD-DAC)

**Advocacy:** To demonstrate the benefits of supporting research, enhance understanding of research and its processes among policymakers and the public, and make the case for policy and practice change. (RAND Europe)

**Allocation:** To determine where best to allocate funds in the future, making the best use possible of a limited funding pot. (RAND Europe)

**Analysis [and Learning]:** To understand how and why research is effective and how it can be better supported (or allocated), feeding into research strategy and decision making by providing a stronger evidence base. (RAND Europe)

**Applied research:** Original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. (OECD-Frascati)

**Assessment:** A synthesis of facts, which arise from the evaluation process, and judgments. (ETAN Expert Working Group)

**Attribution:** The assertion that certain events or conditions were, to some extent, caused or influenced by other events or conditions. This means a reasonable [causal] connection can be made between a specific outcome and the actions and outputs of a government policy, programme, or initiative. (EPA)

**Baseline data:** Initial information on a programme or programme components collected prior to receipt of services or participation activities. Baseline data are often gathered through intake and observations and are used later for comparing measures that determine changes in a programme. (EPA)

**Baseline study:** An analysis describing the situation prior to a [programme], against which progress can be assessed or comparisons made. (OECD-DAC)

**Basic research:** Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. (OECD-Frascati)

**Beneficiaries:** The individuals, groups, or organisations, whether targeted or not, that benefit, directly or indirectly, from the [programme]. (OECD-DAC)

See also “Partners”, “Reach”, “Sponsors” “Stakeholders”, “Target group”

**Bibliometrics:** A set of methods used to derive new insight from existing databases of scientific publications and patents. (Science-Metrix)

See also “Scientometrics”, “Technometrics”
Case study: [A]n approach to research that facilitates exploration of a phenomena [sic] within its context using a variety of data sources. This ensures that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon revealed to be understood. (Baxter & Jack)

Contribution: Determining if the programme contributed to or helped to cause the observed outcomes (Almquist)
Note - This differs from “Attribution”, which looks for the proportion of observed impacts that are caused by a programme.

Cost-effectiveness: Comparing similar interventions based on cost and effectiveness. For example, impact evaluations of various education programmes allow policy makers to make more informed decisions about which intervention may achieve the desired objectives, given their particular context and constraints. (World Bank)

Cross sectional (study): A cross-section is a random sample of a population, and a cross-sectional study examines this sample at one point in time. Successive cross-sectional studies can be used as a substitute for a longitudinal study. (Frechtling et al.)
See also “Longitudinal (study)”

Econometrics: The application of statistical methods to the study of economic data and problems. (Merriam-Webster)

Economic returns: The economic value associated with the impacts of a policy, programme or research. (Modified from Buxton et al.)

Evaluation: The process by which the quality, implementation, target relevance and impacts (outcomes) of programmes are investigated, interpreted and examined. (ETAN Expert Working Group).
See also “Process evaluation”, “Formative evaluation”, “Summative evaluation”

Evidence: Information that increases the probability of the truthfulness or accuracy of a proposition. Examples of evidence may include but are not limited to, performance measurement, research studies, programme evaluation, statistical data series, and data analytics. Evidence can be quantitative or qualitative and has varied degrees of reliability. The credible use of evidence in decision-making requires an understanding of what conclusions can be drawn from the information, and equally important, what conclusions cannot be drawn from it. (OMB)

Evidence-based decision making: A philosophy of management that emphasizes the importance of using defensible evidence as a basis for making decisions – sometimes associated with performance management. (McDavid et al.)

Ex-ante (evaluation): An evaluation that is performed before implantation of an intervention. (OECD-DAC)

Ex-post (evaluation): Evaluation of an intervention after it has been completed. It may be undertaken directly after or long after completion. The intention is to identify the factors of success or failure, to assess the sustainability of results and impacts, and to draw conclusions that may inform other interventions. (OECD-DAC)
**Experimental development**: Systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed. (OECD-Frascati)

**Formative evaluation**: Evaluation intended to improve performance, most often conducted during the implementation phase of projects or programmes. Formative evaluations may also be conducted for other reasons such as compliance, legal requirements, or as part of a larger evaluation initiative. (OECD-DAC)

**Goal(s)**: The higher-order objective to which a development intervention is intended to contribute. (OECD-DAC)

See also “Objective(s)”

**Impact**: Positive and negative, primary and secondary long-term effects produced by an intervention, directly or indirectly, intended or unintended. (OECD-DAC)

Note – specific frameworks and tools describe impact differently; e.g., CAHS equates impact to outputs and outcomes whereas logic models equate impact to outcomes and/or to long term outcomes.

See also “Outcome”, “Output”

**Impact assessment**: Assesses the changes that can be [linked] to a particular intervention, such as a project, programme or policy, both the intended ones, as well as ideally the unintended ones. Many [impacts] of programmes are influenced by external factors, including other national, regional, and local programmes and policies, as well as economic or environmental conditions. Thus, the [impacts] observed typically reflect a combination of influences. Correspondingly, the central challenge in carrying out effective impact evaluations is to identify the causal relationship between the project, programme, or policy and [subsequent impacts] (ISRIA 2014, World Bank, GAO 2012)

**Impact evaluation**: See “Impact assessment”

**Implementation evaluation**: See “Process evaluation”

**Indicator**: A variable that measures a phenomenon of interest to the evaluator. The phenomenon can be an input, an output, an outcome, a characteristic, or an attribute. (World Bank)

Note – [an indicator can be either] a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a development actor. (OECD-DAC)
**Glossary**

**Innovation:** The implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations [...] A common feature of an innovation is that it must have been implemented. A new or improved product is implemented when it is introduced on the market. New processes, marketing methods, or organisational methods are implemented when they are brought into actual use in the firm’s operations. (OECD/Eurostat)

**Input:** Inputs include the labour (the range of skills, expertise and knowledge of employees), capital assets (including land and buildings, motor vehicles and computer networks), financial assets, and intangible assets (such as intellectual property which are used in delivering outputs). (OECD 2009)

**Internal rate of return (IRR):** Equates a dollar of investment in R&D to the present value of the marginal productivities of that investment in the future. (Hall et al.) The IRR is a convenient way of representing the return to the original research investment, and has the pragmatic advantage that it is the method used in the published empirical literature on the GDP impact of research. (Buxton et al.)

**Knowledge translation:** A dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system. (CIHR)

Note - It should be noted that this definition holds true for the application of knowledge for practical purposes outside of health too.

**Logic model:** A diagram and text that describes and illustrates the logical (causal) relationships among programme elements and the problem to be solved, thus defining measurements of success. (EPA)

**Longitudinal (study):** An investigation or study in which a particular individual or group of individuals is followed over a substantial period of time to discover changes that may be attributable to the influence of the treatment, or to maturation, or the environment. (Frechtling et al.) See also “Cross-sectional (study)”

**Monitoring:** A systematic process of collecting and recording information on the progress and direction of ongoing actions, generated mainly for management purposes. (ETAN Expert Working Group)

**Measure:** See “Indicator”

**Mixed methods:** The mixture of qualitative and quantitative approaches in many phases in the research process. (Creswell & Plano Clark)

**Objective(s):** Specific results or effects of a programme’s activities that must be achieved in pursuing the programme’s ultimate goals. (EPA)

**Outcome:** Changes or benefits resulting from activities and outputs. Short-term outcomes produce changes in learning, knowledge, attitude, skills or understanding. Intermediate outcomes generate changes in behavior, practice or decisions. Long-term outcomes produce changes in condition. (EPA) See also “Impact”
Glossary

**Output**: The products or results of the process. These might include, for example, how many people a project has affected, their ages and ethnic groups or the number of meetings held and the ways in which the findings of the project are disseminated. (WHO)
See also “**Impact**”

**Partners**: The individuals and/or organisations that collaborate to achieve mutually agreed upon objectives. (OECD-DAC)
See also “**Beneficiaries**, “**Reach**, “**Sponsors**”, “**Stakeholders**”, “**Target group**”

**Performance management**: The systematic process of monitoring the achievements of programme activities; collecting and analysing performance information to track progress toward planned results; using performance information and evaluations to influence decision-making and resource allocation; and communicating results to advance organisational learning and communicate results to stakeholders. (USAID)

**Process evaluation**: This form of evaluation assesses the extent to which a programme is operating as it was intended. It typically assesses programme activities' conformance to statutory and regulatory requirements, programme design, and professional standards or customer expectations. (GAO 2011)

**Project**: Time-bounded efforts, often within a programme. (Scriven)

**Programme**: A set of related, purposive activities that is intended to achieve one or several related objectives. (McDavid et al.)

**Programme stage (of development)**:
- **Early** (the programme is currently being developed or was recently developed and implemented, typically with a time frame of less than 3 years)
- **Stable** (the programme has been operational for several years, typically with a time frame between 3-5 years)
- **Mature** (the programme is well established and has been operational for a prolonged time, typically with a time frame of more than 5 years).

Note - years are typical estimates, however will change pending the duration of the programme. (ISRIA 2014)

**Programme theory**: A description of a programme that reflects how and why the set of programme activities are intended to lead to outputs and immediate, intermediate and longer term effects over a specified period (UNESCO)

**Questionnaire**: Forms used in a survey design that participants in a study complete and return to the researcher. Participants mark answers to questions and supply basic, personal or demographic information about themselves. (Creswell)

**Reach**: The beneficiaries and other stakeholders of a [programme]. (OECD-DAC)
See also “**Beneficiaries**”

**Research and experimental development (R&D)**: Creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. R&D covers three activities: “**Basic research**”, “**Applied research**”, and “**Experimental development**”. (OECD)
**Glossary**

**Research, technology, and development (RTD):** See “Research and experimental development”

**Research impact assessment (RIA):** Assesses the changes that can be linked to a particular research programme (e.g. funding, intervention, portfolio), both intended and unintended ones. (ISRIA 2014) See also “Impact Assessment”

**Research impact assessment (RIA) plan:** A written document describing the overall approach or design that will be used to guide an [assessment]. It includes what will be done, how it will be done, who will do it, when it will [be] done, and why the [assessment] is being conducted (EPA, adapted)

**Return on investment (ROI):** A measure of the (traditionally) financial return from a research investment. For financial return on investment, ROI is presented as a % of the costs that the net financial return represents (i.e. ROI = [benefits – costs]/costs). (ISRIA 2014)

**Scientometrics:** Scientometrics is used to measure scientific activity based on scientific papers. (Science-Metrix) See also “Bibliometrics”, “Technometrics”

**Sponsor(s):** The individuals, groups, or organisations that provide the financial or other resources required for the evaluation. (Yarbrough et al.) See also “Beneficiaries”, “Partners”, “Reach”, “Target group”

**Stakeholders:** Agencies, organisations, groups, or individuals who have a direct or indirect interest in the [programme] or its evaluation. (OECD-DAC) Note – stakeholders can have different roles in the RIA. See also “Beneficiaries”, “Sponsors”, “Partners”, “Reach”, “Target group”

**Summative evaluation:** A study conducted at the end of an intervention (or a phase of that intervention) to determine the extent to which anticipated outcomes were produced. Summative evaluation is intended to provide information about the worth of the programme. (OECD-DAC)

**Survey (research design):** See “Questionnaire”

**Target group:** The specific individuals or organisations for whose benefit the [programme] is undertake. (OECD-DAC) See also “Beneficiaries”, “Partners”, “Reach”, “Sponsors”, “Stakeholders”

**Technometrics:** A proxy measure for innovation based on patents. (Science-Metrix) See also “Bibliometrics”, “Scientometrics”

**Theory of Action:** See “Programme theory”

**Theory of Change:** See “Programme theory”

**Triangulation:** The use of three or more theories, sources or types of information, or types of analysis to verify and substantiate an assessment. (OECD-DAC)

**Value for money:** The optimal use of resources to achieve the intended outcomes. (NAO) Note – different frameworks and performance management systems can define differently. For example the Treasury Board of Canada equates value for money as relevance and performance (Treasury Board of Canada Secretariat).

**Unit of analysis:** The level at which assessment information and measures are taken and analysed. (Yarbrough et al)
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Terms &amp; Phrases:</th>
<th>Organisations &amp; Entities:</th>
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<tbody>
<tr>
<td>AHRIS</td>
<td>Alberta Health Research and Innovation Strategy</td>
<td>AIHS</td>
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<td>IRR</td>
<td>Internal rate of return</td>
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<td>Knowledge translation</td>
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<tr>
<td>REF</td>
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Sources


Other languages available: Chinese, Italian, German, Russian, Spanish, etc.


