UNICEF
Office of Research

Taxonomy for Defining and Classifying UNICEF Research, Evaluation & Studies

Version:	2
Date:	September 2014

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1. RATIONALE

The purpose of this document is to build an organization-wide understanding of what constitutes 'research', 'evaluation' and 'studies', and their associated typologies at UNICEF. This classification has many benefits, including:

a) greater understanding of the functions of research and evaluation;
b) improved accessibility to knowledge products in databases and other management information systems; and
c) improved quality assurance efforts across UNICEF.

2. TAXONOMY FOR RESEARCH, EVALUATION AND STUDIES

A taxonomy is a classification of clearly defined concepts, including the principles that underlie such classification. The 'UNICEF Taxonomy for Research, Evaluation and Studies' is based on a literature review of the defined concepts, comparison with other relevant international development organizations[1], and an internal consultation with key stakeholders.[2] Figure 1 depicts the conceptual

Figure 1: **UNICEF TAXONOMY FOR RESEARCH, EVALUATION AND STUDIES**

Master terms and their typologies

1. RESEARCH	2. EVALUATION	3. STUDY
Typologies	*Typologies*	*Typologies*
1.1 Theoretical	**2.1 Formative evaluation**	**3.1 Research-informing**
1.2 Applied/Operational	**2.2 Meta-evaluation**	**3.2 Programme-informing**
1.3 Methodological & analytical tools development	**2.3 Summative evaluation**	**3.3 Evaluation-informing**

Cross-cutting technical terms (valid for one or more master terms)

4. STRATEGIES (Quantitative, qualitative, mixed-method)

5. DESIGN OPTIONS (E.g. Experimental, longitudinal, case study, survey, …)

6. METHODS	
6.1 Data Collection (E.g. Ethnography, focus-groups, self-completion methods…)	**6.2 Data Analysis** (E.g. Statistical, thematic…)

7. OUTPUTS	
7.1 Contribution to published, peer-reviewed literature (E.g. Journal article, book…)	**7.2 Contribution to grey literature** (E.g. Discussion paper, policy brief)

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1 The main sources from international organizations that were reviewed when composing the taxonomy can be found in Section 5 of this document.

2 This Taxonomy has greatly benefited from wide internal consultation with UNICEF Country and Regional Offices, the Evaluation Office and the Research Task Force of the Programme Division.

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levels of the taxonomy, organized around three master terms – 'research', 'evaluation' and 'study' – and their typologies. The majority of UNICEF evidence-generating efforts should fall under one of these three categories. The second level of the taxonomy consists of cross-cutting technical terms – strategies, designs, methods, and outputs – applicable to one or more of the master terms. Section 4 defines all terms and typologies in detail. The taxonomy is both a capacity-building and an administrative tool. By understanding the difference between research, evaluation and study, we can strengthen our evidence-generating efforts by applying the appropriate strategies, designs and methods to address knowledge gaps. We can also use this distinction to appropriately classify knowledge products in our management information systems and follow appropriate quality assurance guidelines. At a minimum, the taxonomy ensures that we are speaking the same language when discussing research, evaluation and other forms of evidence at UNICEF.

3. USING THE TAXONOMY IN UNICEF MANAGEMENT INFORMATION SYSTEMS

One of the aims of the Taxonomy is to facilitate easier classification of research, evaluation and studies in UNICEF Management Information Systems, including the Evaluation and Research Database (ERDB), the online Integrated Monitoring and Evaluation Plan (e-IMEP), the Country Office Annual Reporting System (COAR), and others.

Currently the ERDB (formerly the Evaluation database) is organized around the three master terms, but may be expanded to also include the typologies and other cross-cutting technical terms. Annex I provides helpful tips on how to classify familiar UNICEF products such as a 'SitAn', 'MICS' or 'rapid assessment' according to the new taxonomic structure.

Additional guidance on how to apply the taxonomy to other Management Information Systems will be provided when these systems are set up to accommodate it. It is important to keep in mind that the taxonomy is an evolving mechanism, which will need to be updated regularly according to needs and experience. Please send your recommendations on how to improve it to research@unicef.org.

4. TAXONOMY DEFINITIONS

This section defines the terms and typologies of the taxonomy presented in Figure 1 above.

4.1 Master terms

Master Terms	Definitions
1. RESEARCH	Research is the systematic process of the collection and analysis of data and information, in order to generate new knowledge, to answer a specific question or to test a hypothesis. Its methodology must be sufficiently documented to permit assessment and replication. Research at UNICEF should examine relevant issues and yield evidence for better programme and policy advice.

2. EVALUATION	Evaluation is a systematic and objective effort to determine the relevance, appropriateness, effectiveness, efficiency, impact and sustainability of development efforts, based on agreed criteria and benchmarks among key partners and stakeholders. It involves a rigorous, systematic and objective process in the design, analysis and interpretation of information to answer specific questions. It provides assessments of what works and why, highlights intended and unintended results, and provides strategic lessons to guide decision-makers and inform stakeholders.
3. STUDY	Studies are defined as initiatives to establish current knowledge around a specific topic through the **descriptive** summarization, interpretation or assessment of information and data. Studies are generally descriptive in nature and address immediate needs of a particular UNICEF sectoral intervention (programmatic, policy and advocacy) primarily at national or sub-national level. They can take the product of research and adapt it to specific projects or country settings or can involve primary data collection to develop baselines for informing subsequent research, intervention or evaluation activities. Although different from research in their purpose, scope and application, studies are equally instrumental in the design of robust research initiatives and effective programmatic, policy and advocacy interventions. Examples of studies in UNICEF's context include 'rapid assessments', 'situation analyses', 'literature/desk reviews', 'mapping exercises', 'nutrition surveys', and other similar sector-specific surveys.

4.2 Master term typologies

RESEARCH TYPOLOGIES	
1.1.THEORETICAL RESEARCH	Type of research undertaken to advance the conceptual understandings underlying the various thematic issues relevant to UNICEF policy and programming.
1.2.APPLIED/ OPERATIONAL RESEARCH	Type of research that is undertaken to define solutions to specific problems relevant for UNICEF policy and programming through proofing in real world conditions.
1.3.METHODOLOGICAL & ANALYTICAL TOOLS DEVELOPMENT RESEARCH	Type of research that has elements of conceptual analysis as part of the development of methodological and analytical tools, measures and indicators etc., that support applied and other types of research across UNICEF's policy and programming efforts.
EVALUATION TYPOLOGIES	
2.1.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.

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2.2.META-EVALUATION	Evaluations designed to aggregate findings from a series of evaluations. It can also be used to denote the evaluation of an evaluation to judge its quality and/or assess the performance of the evaluators.
2.3.SUMMATIVE EVALUATION	Type of evaluation 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 program.
STUDY TYPOLOGIES	
3.1.RESEARCH-INFORMING	Studies undertaken to inform subsequent research. Key examples are literature reviews or mapping exercises.
3.2.PROGRAMME-INFORMING	Studies conducted to inform programmatic interventions, either sectorally and/or at national/subnational level. Different UNICEF outputs that can be categorised as part of such efforts include SitAns, systems assessments, rapid assessments, sectoral surveys.
3.3.EVALUATION-INFORMING	Studies aimed at informing future evaluation activities. A key example is a baseline survey or study.

The taxonomy presents the master terms as exclusive categories, but in practice some overlap exists. One such example is **'evaluative research'**, which represents a cross-over between research and evaluation, and reflects a purpose of research or evaluation rather than a specific method. It is a type of applied research which aims to determine whether a programme or policy intervention has produced the intended result for the purposes of decision-making. It uses standard social research methods for evaluative purposes and employs techniques specifically developed for the evaluation of programmes and policies. A typical example of evaluative research is an impact evaluation. The appropriate classification of evaluative research will be determined by its stated objectives and approach. Where its aim is to contribute to improved effectiveness and management of UNICEF programmes, it may best fit under 'evaluation', but where it aims to add new knowledge about an intervention conducted with or by partners, it fits under 'research'.

4.3 Cross-cutting technical terms

Research, evaluation and studies can use the same strategies (qualitative, quantitative, mixed-methods), designs (e.g. experimental, longitudinal, systematic review) and data collection (e.g. interviews, surveys) and analysis (statistical, thematic) methods. For this reason, strategies, designs, and methods are depicted as cross-cutting concepts that can apply across the master terms level.

4.3.1   Research, evaluation and study <u>strategies</u>

4. STRATEGY	A general orientation to the conduct of the research/evaluation or study – as appropriate.
STRATEGIES	

QUANTITATIVE RESEARCH STRATEGY	A research strategy which emphasises quantification in the collection and analysis of data. It allows the development or testing of a theory composed of variables, measured with numbers, and analysed with statistical processes to determine the relevant relationships among them. Often used to research social and developmental issues that require large data-sets that cannot be analysed validly or reliably using a qualitative research strategy.
QUALITATIVE RESEARCH STRATEGY	A research strategy in which data is explored in non-numeric formats, including text, audio, imagery etc. Normally undertaken to gain insights concerning attitudes, beliefs, motivations and behaviours of individuals in relation to social or human problems. It tends to be a strategy associated with inductive reasoning, as well as constructivism and interpretivist approaches to research questions. Its results are not usually considered generalizable, but are often transferable.
MIXED-METHOD RESEARCH STRATEGY	A research strategy that combines qualitative and quantitative data collection and/or analysis.

4.3.2   Research, evaluation and study <u>designs</u> – typologies and definitions

The classification of the various designs and methods that follow may appear clear-cut, but in reality one research/evaluation/study will feature a mix of approaches. The outlined approaches are cross-cutting and in many cases apply to all three master terms. Although we've tried to provide a complete list of designs and methods, it is not exhaustive and some approaches used by UNICEF and partners may have been omitted. Please send your suggestions on what to include in the next version of the taxonomy to research@unicef.org.

5. DESIGN	A research, evaluation or study design provides a framework for the collection and analysis of data. The selection of a particular design depends on the nature of the research question being investigated.
DESIGN TYPOLOGIES	
(CLASSIC) CONTROLLED EXPERIMENTAL DESIGN/ RANDOMIZED CONTROLLED TRIAL (RCT)	A research or evaluation design with two or more randomly selected groups (an experimental group and control group) in which the researcher introduces an intervention (such as a new programme or policy) and measures its impact on the dependent variable at least two times (pre- and post-test measurements). In particular RCTs – which originated in clinical settings and are known as the 'gold standard' of medical and health research – are often used for addressing **evaluative research questions**, which seek to assess the effectiveness of programmatic and policy interventions in developmental settings.

QUASI-EXPERIMENTAL DESIGN	A research/evaluation design in which participants are **not randomly** assigned to treatment conditions, but in which comparison groups are constructed by statistical means. It differs from the (classic) controlled experiment by not having random assignment of the treatment/intervention group.
CASE STUDY DESIGN	This research design entails an in-depth examination of a single or several case(s) (e.g. individuals, groups, institutions, countries, processes), conducted and designed to result in a thorough and well-organized understanding of the subject(s) being examined. Case studies can address the micro-situation of a single person in everyday life or the macro-situation of a state and/or even global processes. The results can be used as stand-alone findings, or they can be integrated as inputs into broader syntheses and/or comparative analyses.
COMPARATIVE DESIGN	A design which uses the comparison of two or more cases in order to illuminate existing knowledge or generate new insights as a result of contrasting of the findings uncovered through the comparison.
PARTICIPATORY ACTION RESEARCH DESIGN	A multi-stage participatory and inclusive research design, in which a problem is diagnosed collaboratively with the concerned stakeholders with the purpose of finding practical solutions to the problem.
SYSTEMATIC REVIEW DESIGN	A research design that provides a framework for drawing together and critically assessing the results from existing evidence on a focused question or topic. The evidence-base is selected according to clear criteria and the review is conducted through a standardized protocol. After the aggregation of all relevant literature is finalized, an appraisal of the quality of the studies and reports using the clearly defined criteria is made, and conclusions are drawn only from the data that meet the quality standards. Prominent examples include **meta-analysis** and **meta-ethnography** (See their definitions in the **Glossary**).
CROSS-SECTIONAL SURVEY DESIGN	This is a research design in which data from particular participants are obtained at a single point in time in order to collect a body of quantitative or quantifiable information in connection with two or more variables, which are then examined to detect patterns of association. Cross-sectional survey design can be contrasted with **longitudinal** designs, in which a **panel** or **cohort** of individuals is interviewed repeatedly over a period of time (see below).
LONGITUDINAL DESIGN	A research design in which data are collected from the same sample at different intervals at least two different times. Its two main typologies are trend and cohort/ panel designs (see below).

COHORT/PANEL DESIGN	A research design in which participants in a well-defined cohort, usually a group of individuals born in the same period of time, are followed over time. Cohort designs can be applied prospectively or retrospectively, the former involving a systematic follow-up for a defined period of time or until the occurrence of a specified event, whereas in the case of the latter, background data on the cohort are already available.
RETROSPECTIVE DESIGN	A research design based on the analysis of existing data (e.g., birth and death certificates, medical records, school records, or employment records) or by obtaining information about past events elicited through interviews or survey-questionnaires.
CENSUS	A survey of a whole population.

4.3.3   Research, evaluation and study methods – typologies and definitions

6. METHODS	**Research, evaluation or study methods are defined as techniques for collecting and analysing data.**
DATA COLLECTION METHODS	
ETHNOGRAPHY/PARTICIPANT OBSERVATION	Ethnographies study groups and/or cultures over a period of time. The goal of this type of research is to comprehend the particular group/culture through observer immersion into the culture or group.
STRUCTURED/SYSTEMATIC OBSERVATION	A technique in which the researcher employs explicitly formulated rules of observation and recording of behaviour.
OPINION POLL	A type of survey in which people's opinions are asked. Can be on any subject. In another context, opinions are often surveyed as attitudes in knowledge, attitude, practice, and behaviour studies.
STRUCTURED INTERVIEW	A data collection method in which all respondents are asked exactly the same questions in the same order based on a formal interview schedule.
UNSTRUCTURED INTERVIEW	Similar to a structured interview, but with a very informal style of questioning, with a variation in the phrasing and sequencing of questions from one interview to the other.
SEMI-STRUCTURED	A survey instrument combining structured and unstructured questions.
ORAL HISTORY AND LIFE HISTORY INTERVIEWS	A largely unstructured interview in which the respondent is asked to recall events from his /her past and to reflect on them or to get information on the entire biography of each respondent.

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FOCUS-GROUP	A form of group discussion among people of similar status who are asked about their opinions on and/or experiences of a certain issue or concern in order to understand the dimensions and rationale.
SELF-COMPLETION METHODS	Methods that require respondents to work through and complete a questionnaire on their own, mostly via paper or electronic questionnaires.
DATA ANALYSIS METHODS	
GROUNDED THEORY	An approach to the analysis of qualitative data that aims to generate theory out of research data by achieving a close fit between the two. The 'substantive' grounded theory is applicable to the setting studied, whereas the 'formal' grounded theory typology is applicable to a range of similar settings.
THEMATIC ANALYSIS	The analysis of qualitative data for the extraction of key themes in one's data, based on agreed principles for defining core themes in data.
NARRATIVE ANALYSIS	The collection and interpretation of life accounts in interview and other forms with reference to story-construction with particular attention to the use of explanatory forms such as metaphors and experiences as well as being sensitive to the temporal sequence of such experiences.
CONTENT ANALYSIS	Objective, quantitative studies of documents or other forms of communication that examine frequency/patterns of words, phrases, concepts, images, themes, characters, roles, etc. It requires the development of a coding system that identifies which aspects should be counted and how. It may be inductive (identifies themes and patterns) or deductive (quantifies frequencies of data). The results are descriptive, but will also indicate trends or issues of interest. While it is often associated with media analysis, it is in fact useful for any subject with a documentary base.
DESCRIPTIVE STATISTICS	The numerical, graphical and tabular techniques for organizing, analysing, and presenting data.
INFERENTIAL STATISTICS	The technique of forming conclusions based on samples and includes the act of formalizing relationships between variables in the form of mathematical equations by describing how one or more variables are related to each other. Specific techniques include univariate, bivariate, multivariate analysis, regression, variance, epidemiology, etc.

ECONOMIC MODELS: COST-BENEFIT/EFFECTIVENESS/UTILITY ANALYSIS	Economic analysis that converts results/effects into monetary terms or programme outcomes and assesses the costs for additional gain.

4.3.4 Research, evaluation and study <u>outputs</u>

Outputs are divided into two overarching categories: those that **contribute to grey literature** and those that **contribute to published, peer-reviewed literature**. Outputs are also cross-cutting and apply to research, evaluation and studies. Examples of outputs are provided in the table below, but will be further revised in the next version of the taxonomy in collaboration with the Division of Communication.

7. OUTPUTS	
PUBLISHED, PEER-REVIEWED LITERATURE	**GREY LITERATURE or NON PEER-REVIEWED LITERATURE**
Working Paper (published, peer-reviewed)	Working Paper
Discussion Paper (published, peer-reviewed)	Discussion Paper
Flagship Publication	Policy Brief
Stand-alone, non-flagship publication	Research Brief
Journal Article	Country Thematic Report
Book	Programme Evaluation Report
	Donor Report

5. SOURCES USED TO DEVELOP THE TAXONOMY

The taxonomy is based on an earlier one developed by the Evaluation Office. A brief mapping exercise of research classifications and definitions was undertaken to support the review of a framework and its refinement into this new taxonomy. The mapping proved to be challenging, as most large development organizations working in similar contexts as UNICEF do not publicly display such information on their website.

The following key sources were consulted when developing the current taxonomy and refining its definitions:

1. The World Bank; www.worldbank.org
2. The Overseas Development Institute (ODI); http://www.odi.org.uk/rapid/Tools/Definitions.html
3. World Health Organization (WHO); http://whqlibdoc.who.int/publications/2009/9789241547727_eng_Chapter5-end.pdf
4. Save the Children; http://vac.wvasiapacific.org/downloads/saveres.pdf
5. United Nations Educational, Scientific and Cultural Organization (UNESCO); UNESCO/NS/ROU/14
6. World Trade Organization (WTO); www.wto.org/english/res_e/reser_e/reser_e.htm
7. European Commission (EC); http://ec.europa.eu/euraxess/index.cfm/rights/definitions#a17
8. ILO; www.ilo.org/global/research/land--en/index.htm
9. Research Mindedness Initiative; http://www.resmind.swap.ac.uk/content/02_what_is/what_is_index.htm
10. ADB; http://www.adb.org/data/main

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11. OECD/DAC (mostly used to construct the overall taxonomy, particularly for the evaluation section); e.g. http://www.oecd.org/development/peer-reviews/2754804.pdf

ANNEX I: CATEGORIZING FAMILIAR PRODUCTS ACCORDING TO THE TAXONOMY

1.1   Evaluation and research database

Under *Type*, select 'research', 'evaluation', or 'study' or from the drop-down menu. Consult the Master terms definitions in Section 4 or the guide to classifying familiar terms in the table below.

1.2   e-IMEP

The e-IMEP is currently under development and will be adapted to reflect the master terms in this taxonomy. In the meantime, the definition of 'research' and 'evaluation' in this taxonomy should be applied when uploading documents to the trial version of the e-IMEP.

1.3   Tips on how to classify familiar products according to the taxonomy

Many UNICEF staff members are used to classifying evidence products based on their name or the purpose they serve within the organization – such as a 'SitAn', 'MICS', 'rapid assessment' – rather than according to the three master terms of this Taxonomy. The purpose of this section is to *assist staff with making decisions about which of the three master terms may be most appropriate for the classification of familiar products* in the Evaluation and Research Database (ERDB), and other Management Information Systems as they become available. Future versions of the taxonomy will include more detailed guidance on how to classify according to the master term typologies, but this trial version focuses only on the master term level.

Because the master terms define 'research', 'evaluation' and 'study' based on their purpose and methodology, products such as systematic reviews and impact evaluations may fit into different categories depending on their stated purpose. The table below is a loose guide and it is important that staff who use the taxonomy think critically about the master terms that best describe their product. We welcome any feedback on how to make it more user-friendly at research@unicef.org.

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FAMILIAR NAME	POSSIBLE PLACE IN THE TAXONOMY
BASELINE STUDY	A baseline study describes the situation prior to an intervention, so that progress can be assessed or comparisons made in future evaluation and research. It is also important for making decisions on what programming logic to follow. It falls under the master term of 'study'.
EVALUABILITY ASSESSMENT	Evaluability assessments determine the extent to which an activity, project or programme can be evaluated to produce reliable and credible results. Evaluability assessments should be classified under the master term 'study'.
IMPACT EVALUATION	Impact evaluations typically combine aspects of research and evaluation. They add new knowledge by answering research questions, engage in analytic work and evaluate the worth/value of an intervention. For the purposes of UNICEF's Management Information Systems, impact evaluations should be classified under the master term 'evaluation'.
LITERATURE/DESK REVIEWS	Literature and desk reviews typically establish current knowledge around a specific topic through descriptive summarization, interpretation or assessment without conducting new data collection or field work. Most cases are likely to classify under the master term of 'study'.
MAPPING EXERCISE	Mapping is the systematic relating of items against each other with respect to geography, distance from the group under investigation etc. Mapping exercises should be classified under the master term 'study'.
MICS	MICS and other surveys that report findings but do not conduct further analysis that tests a research question or a hypothesis should be classified under the master term 'study'.
NEEDS ASSESSMENT	Needs assessment is a process or a systematic set of procedures undertaken for the purpose of setting priorities and making decisions about programme or organizational improvement or allocation of resources. Where it is based on a theory of change, answers key evaluation questions, and the results are judged against evaluation criteria, it should be classified under the master term 'evaluation'. In the absence of a formal evaluation approach, it should be classified under the master term 'study'.
PROOF OF CONCEPT	Proof of concept generally verifies a certain method, idea or theory to demonstrate its feasibility. Where this work tests a hypothesis or develops research tools, it should be classified under the master term of 'research' (see definition of methodological and analytical tools development research above).
RAPID ASSESSMENT (E.G. IN AN EMERGENCY)	Rapid assessments typically aim to establish knowledge around a specific issue through descriptive summarization, interpretation or assessment of information and data and in most cases should be classified under the master term of 'study'.

REVIEW AND SYNTHESIS	A **review** aims to systematically identify, assess and select relevant existing evidence on a specific topic. A **synthesis** aims to summarise such evidence to answer a research question, identify inconsistencies and/or research gaps and bring the different pieces of evidence into a whole. Many review and synthesis methods exist across disciplines and include systematic review, meta-analysis, realist synthesis, synthesis (in evaluation), literature review and SitAn. Reviews and syntheses are a type of design (see section 4.3.2) which cuts across all three master terms and their appropriate classification needs to be determined by their stated aim and level of analysis.
SECTOR SURVEY	Sector surveys (e.g. Nutrition survey, WASH survey, etc.) that simply report the results to establish a baseline should be classified under the master term 'study'.
SITUATION ANALYSIS (SITAN)	SitAns at UNICEF are conducted to inform programming. They generally summarise existing literature and/or interpret or assess existing data and information and should be classified under the master term 'study'.
SYSTEMATIC REVIEWS	Systematic reviews are a cross-cutting **design** category. Where they aim to answer a specific research question and provide new knowledge through analytical work, they classify under the master term of 'research'. In cases where they assess the quality of the source documents and aggregate the information to reach a conclusion about a theme (as in a meta-evaluation), they classify under the master term of 'evaluation' and where they summarise and interpret existing literature without adding new knowledge, they classify under the master term of 'study'.

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