Kaminzimmer, 13:45-15:00

Universities & SDG progress

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Universities & SDG progress

Baerbel Eckelmann
Times Higher Education
University Impact Rankings, UK

Impact of Science

5-7 June 2019, Berlin

Universities & SDG progress

Zenda Ofir

Co-developer of the RQ+ Framework, South Africa

AESIS

OS	Learning	Health	Farm & Food	Finance	Governance
1.0: Input and authority-centric	Traditional teacher-centric	Traditional doctor-centric medicine	Traditional farmer-centric	Traditional Financial Capital	1.0 Visible hand: *Hierarchy*
2.0: Output and efficiency-centric	Testing: bulimia learning: *fast in, fast out*	Evidence based medicine	Industrial agriculture: monoculture	Extractive Capital: externality blind	2.0 Invisible hand: *Market*
3.0: Outcome- and user-centric	Learner-centric	Patient-centric medicine	Organic Ag: reduce negative footprint	Impact investing: winners take all	3.0 Organized interest groups: *Lobbying*
4.0: Co-creative and eco-system-centric	Activate deep sources of learning	Strengthening sources of well-being	Food as medium for healing planet and people	Generative capital: transforming the system	4.0 ABC: *Awareness-Based Collective action*

We need vertical, not horizontal development.

Otto Scharmer, Medium, April 2019

RQ+

Research Quality Plus

A Holistic Approach to Evaluating Research

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COMMENT

EQUALITY Too few people who are LGBTQ go into science, and too many leave p.27

HERITAGE How UNESCO has tried to broker peace through science and culture p.29

EVOLUTION Synthesizing many lines of evidence to trace the spine's start p.31

BIOLOGY Wet labs squeezed by scarce funds and bureaucracy in Italy p.32

A better measure of research from the global south

Funders **Jean Lebel** and **Robert McLean** describe a new tool for judging the value and validity of science that attempts to improve lives.

In India, the world's leading producer of mangoes, up to 40% of the harvested fruit is destroyed in transit before delivery. This costs up to US$1 billion in lost income each year, affecting the lives and livelihoods of millions of farmers, traders and consumers. So researchers from India, Sri Lanka and Canada developed a suite of nanomaterials that can be sprayed onto fruit on the tree, in packaging or in transit, to extend its life. They trapped hydrophobic hexanal molecules (derived from plant waste) in a hydrophilic membrane so that they could be suspended in liquid for application to the fragile fruit.

In Egypt, more than 95% of women have experienced sexual harassment at least once, and most cases go unreported. So, in 2010, researchers at the Youth and Development Consultancy Institute in Cairo developed Harrassmap (https://harassmap.org/en). This online interactive resource enables people to report and map cases of sexual harassment. When it emerged that university campuses were hotspots, Cairo University implemented a policy to combat sexual harassment, the first of its kind in the Middle East. Other universities in Egypt are following suit.

Both projects help to solve pressing societal challenges. The researchers involved

RQ+ at a glance

RQ+ Assessment Framework

The RQ+ Assessment Framework provides a systems-informed approach to defining and evaluating the quality of research, and its positioning for use and impact. It allows tailoring to context, values, mandate and purpose, and can support planning, management and learning processes at any stage in the lifetime of a research project, program or grants portfolio.

RQ+

Research Quality Plus

A Holistic Approach to Evaluating Research

Framework Components

The RQ+ Assessment Framework consists of three main components:

1. KEY INFLUENCES

Constraining and enabling contextual influences - within or external to the research effort - most likely to affect research performance are identified.

The rating of the key influences using rubrics and a three point scale (e.g. low, medium, high) establishes a risk profile that is used to inform the quality assessment.

The key influences can be 1) constraining (negative) or 2) facilitating / enabling (positive)

Examples from IDRC experience:

1) Maturity of the research field
2) Research capacity strengthening
3) Risk in the data environment
4) Risk in the research environment
5) Risk in the political environment

2. DIMENSIONS & SUBDIMENSIONS

The four dimensions and their subdimensions encapsulate the quality assessment criteria.

Tailored for IDRC:

1. ***Research Integrity***
2. ***Research Legitimacy***
   - *2.1 Addressing potentially negative consequences*
   - *2.2 Gender-responsiveness*
   - *2.3 Inclusiveness*
   - *2.4 Engagement with local knowledge*
3. ***Research Importance***
   - *3.1 Originality*
   - *3.2 Relevance*
4. ***Positioning for Use***
   - *4.1 Knowledge accessibility & sharing*
   - *4.2 Timeliness and actionability*

3. EVALUATIVE RUBRICS

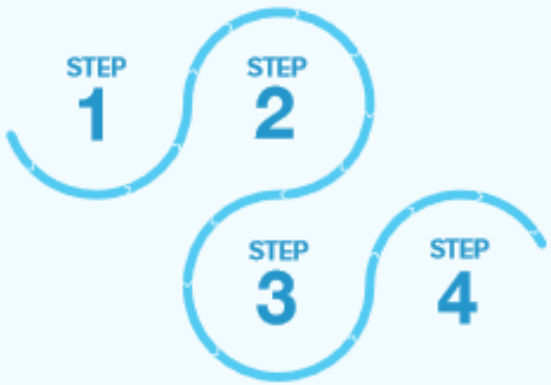
Performance is characterized using customizable research quality rubrics.

Characterization of each key influence, dimension and subdimension is done using tailored rubrics that combine quantitative and qualitative measures.

Ratings on an 8 point scale show four levels of performance (or progress). This is an example. Scales should be created to fit a purpose or intention.

Research quality rubrics and qualitative measures

FIGURE 4 Steps in the application of the RQ+ Assessment Framework



STEP 1

Selecting the sample

[selection of projects & projects' outputs]

STEP 2

Characterizing the key influences

[examining context & applying a rubric]

STEP 3

Rating the quality of the research

[using (sub)dimensions and a rubric]

STEP 4

Synthesizing the ratings

[rolling up across projects, programs, portfolios to the desired level of evaluation]

Research Quality Plus rubrics

BOX 3 Examples of the quality dimension and subdimension rubrics

Dimension 1.0: Research Integrity

UNACCEPTABLE 1 2	LESS THAN ACCEPTABLE 3 4	ACCEPTABLE TO GOOD 5 6	VERY GOOD 7 8
The research has little to no scientific merit. The defensibility of the approach is questionable. There are severe lapses in methodological rigor of literature review, data collection and data analysis.	There is evidence of efforts to meet methodological standards but the efforts do not fully succeed. There are major shortcomings in the justification for the choice of research design and methods.	Accepted methodological standards in the design and execution of the research are met.	The scientific merit is without question. There is evidence of exceptional thoroughness in the research design and all phases of research execution. The project could serve as an exemplar of what it means to achieve this criterion.

Dimension 2: Research Legitimacy; Subdimension 2.4: Engagement with Local Knowledge

NOT APPLICABLE	UNACCEPTABLE 1 2	LESS THAN ACCEPTABLE 3 4	ACCEPTABLE TO GOOD 5 6	VERY GOOD 7 8
The nature of the research is such that local knowledge and engagement do not need to be taken into account.	Engagement with local contexts has been neglected during the research process. Several major weaknesses can be found, related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, and local benefits from the research process assured.	Local contexts and engagement have been considered during the research process, but some weaknesses remain related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, and/or local benefits from the research process assured.	Local context and engagement have been a focus in the research process. Few, if any, minor weaknesses remain related to how research needs and questions were identified, local communities or populations engaged, local contexts and knowledge systems considered, or local benefits from the research process assured.	Local context and engagement have been a clear and systematic focus in the research process. Research needs and questions were appropriately identified, local communities or populations engaged, local contexts and knowledge systems considered and respected, and local benefits from the research process assured.

Dimension 3: Research Importance; Subdimension 3.2: Relevance

UNACCEPTABLE 1 2	LESS THAN ACCEPTABLE 3 4	ACCEPTABLE TO GOOD 5 6	VERY GOOD 7 8
There is little or no evidence that the research might contribute to a local priority, a key development policy or strategy, or an emerging area that might demand solutions in the foreseeable future. Needs assessments and justification for the work are absent or unconvincing.	There is some evidence that the research might contribute to a local priority, a key development policy or an emerging area that might demand solutions in the foreseeable future. A focus on this area of work at this time appears sufficiently justified.	There is good evidence that the research might contribute to an important local priority, a key development policy or strategy, or an emerging area of some significance that might demand solutions in the near future. A focus on this area of work at this time has been well justified.	There is good evidence that the research is already recognized as having the potential to address a critical local priority, a key development policy or strategy, or an important emerging area that is highly likely to demand solutions in the near future. A focus on this area of work at this time puts the researchers at the cutting edge of an active and/or important field of work.

Dimension 4: Positioning for Use; Subdimension 4.2: Timeliness and Actionability

UNACCEPTABLE 1 2	LESS THAN ACCEPTABLE 3 4	ACCEPTABLE TO GOOD 5 6	VERY GOOD 7 8
There is little or no evidence that any analysis of relevant user environment was undertaken and that institutional, political, social, or economic contingences were considered.	There is evidence that some analysis of the user setting was under undertaken; however, consideration of is incomplete and, furthermore, the analysis is not accompanied by discussion of actual strategies or plans to move the knowledge to policy or practice.	There is evidence that the user environment and major contingencies have been examined and reflected upon and connected to strategies and plans for moving the research into policy or practice in a timely manner.	The analysis of the user environment and contingencies is exceptionally thorough and well-documented or articulated. There is evidence of careful prospective appraisal of the likelihood of success of strategies designed to address contingencies.

Understanding the policy influence success of the LIRNEAsia thinktank

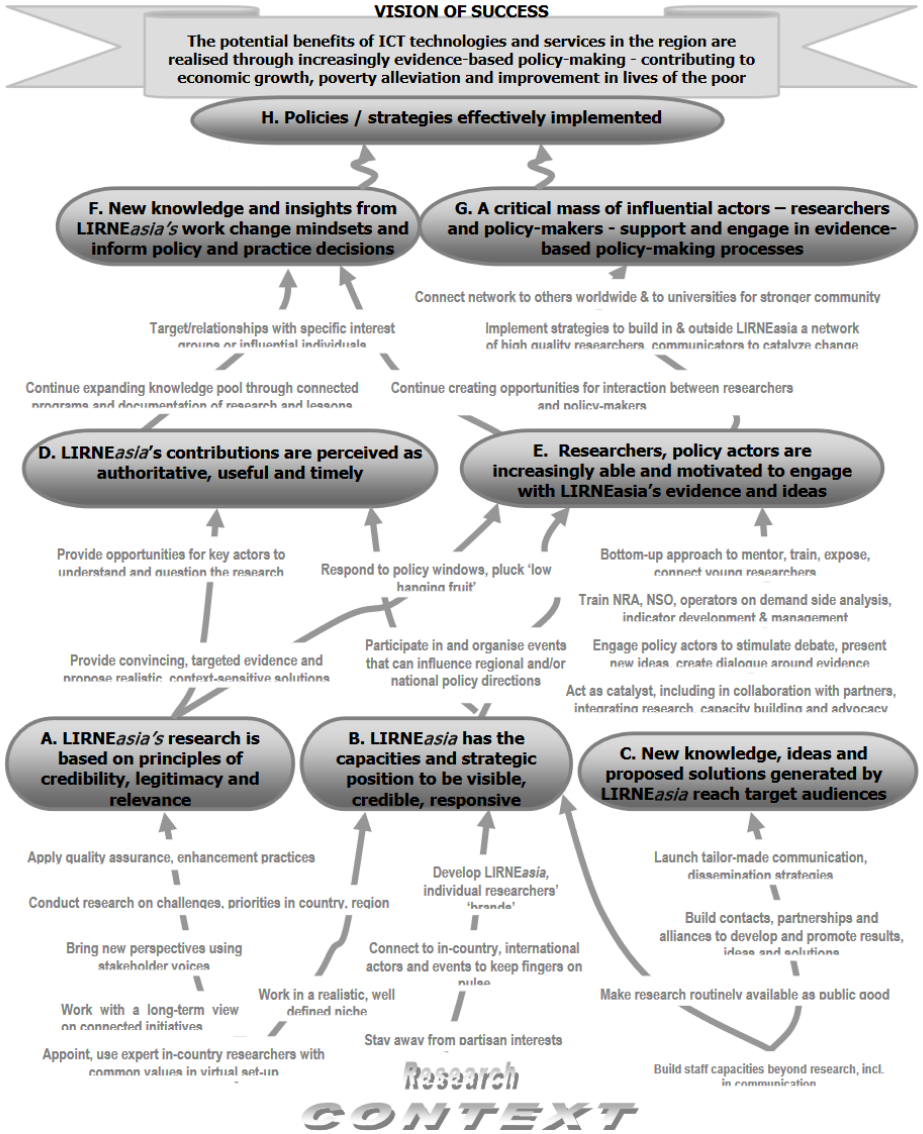


Figure 3: The preconditions and strategies underpinning LIRNEasia's logic or 'theory of change'

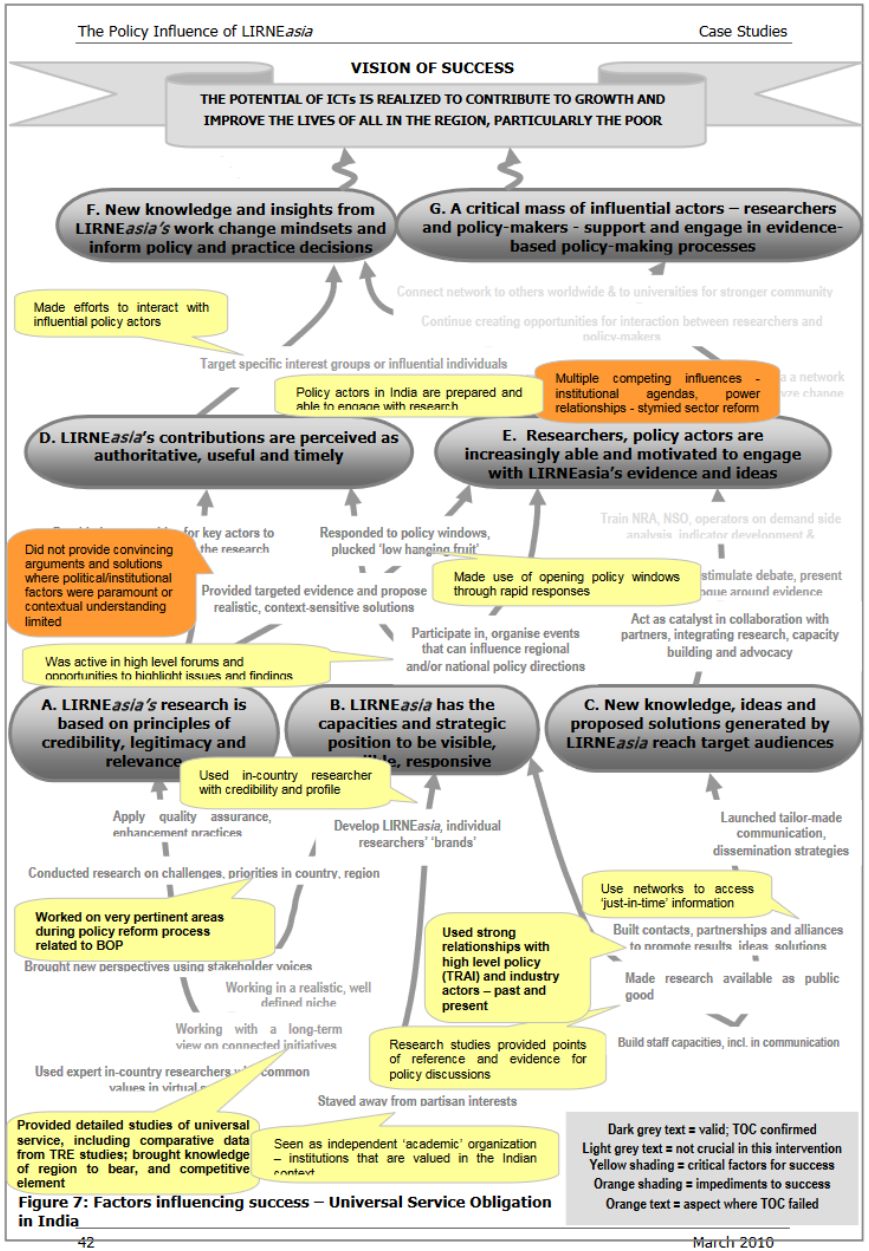


Figure 7: Factors influencing success – Universal Service Obligation in India