

Evaluation

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Summary

The Research on Open Educational Resources for Development (ROER4D) project was a four-year (2013–2017), large-scale networked project which set out to contribute a Global South research perspective on how open educational resources can help to improve access, enhance quality and reduce the cost of education in the Global South. The project engaged a total of 103 researchers in 18 sub-projects across 21 countries from South America, Sub-Saharan Africa and Asia, coordinated by Network Hub teams at the University of Cape Town (UCT) and Wawasan Open University.

This chapter forms part of a project activity toolkit, which is comprised of five documents outlining activities associated with each of the ROER4D UCT Network Hub pillars of project management activity: networking, evaluation, communications, research capacity building, and curation and dissemination. It is hoped that these chapters will be of practical use to other projects attempting to integrate any of these functions in their operational strategy.

The focus of this chapter is on the evaluation activity which took place within the ROER4D project. Using a Utilization-Focused Evaluation (UFE) framework as a scaffold, it outlines and reflects on what evaluation activity was undertaken in the ROER4D project against the 12-step UFE process, why this was done and what was learned from the process. It also offers recommendations for other Global South, large-scale networked projects that may wish to implement an internal, use-focused evaluation process.

Acronyms and abbreviations

DECI-2	Developing Evaluation and Communication Capacity in Information Society Research
IDRC	International Development Research Centre
KEQs	key evaluation questions
OER	open educational resources
PI	Principal Investigator
PIUs	primary intended users
ROER4D	Research on Open Educational Resources for Development
TAGS	Twitter Archiving Google Sheets
UCT	University of Cape Town
UFE	Utilization-Focused Evaluation

Introduction

This chapter focuses on the evaluation work conducted in the Research on Open Educational Resources for Development (ROER4D) project. Evaluation can be defined as the systematic determination of the quality or value of something (Scriven, 1991). In a grant-funded research initiative, this implies following a specific plan in order to assess the project using agreed-upon indicators of success that can provide an indication of what is working and how well it is working. It also provides insight into aspects of project activity which are not functioning optimally and offers suggestions as to how these areas of project activity can be refined to address any shortcomings.

With more than 100 researchers and research associates across 21 countries in 18 sub-projects, ROER4D was a large-scale research project which faced numerous challenges in meeting its primary objective of creating an empirical knowledge base regarding adoption and impact of open educational resources (OER) in the Global South. With members from diverse linguistic, cultural and academic backgrounds, the project enjoyed the many benefits that derive from this diversity, but also its many challenges. To manage this, ROER4D implemented a real-time feedback mechanism that allowed it to remain attentive to issues that arose during the course of the project, creating opportunities for feedback, reflection and course correction.

This chapter details how ROER4D employed a unique evaluation process – Utilization-Focused Evaluation (UFE) (Patton, 2008; Ramirez & Brodhead, 2013) – to allow the central project management structure, the University of Cape Town (UCT) Network Hub, to obtain regular feedback on their activities from researchers, so as to enhance the Hub's ability to respond to researchers' needs in an agile manner. This evaluation process occurred during multiple phases of the project, allowing the data and insights it yielded to shape the UCT Network Hub's successive actions.

Using the UFE framework as a scaffold, this chapter outlines and reflects on what evaluation activity was undertaken in the ROER4D project, why this was done and what was learned in the process. It is by no means an exhaustive look at the full project evaluation process, and links to supporting documents such as the final project evaluation plan are provided for those interested exploring the ROER4D evaluation process in more detail. By focusing on practice, this chapter aims to provide insights for other research projects planning to or currently performing evaluation work.

ROER4D project evaluation

The ROER4D project aimed to provide evidence-based research on the adoption and impact of OER in South America, Sub-Saharan Africa and South and Southeast Asia.

The evaluation component emerged as a result of the desire of the project funder, the International Development Research Centre (IDRC), to have ROER4D engage in UFE under the guidance of another IDRC project which had expertise in employing UFE in large-scale projects. This project, the Developing Evaluation and Communication Capacity in Information Society Research (DECI-2), was to assist ROER4D in benefitting from an internal UFE process, particularly as relates to its communications activities. It had experience in providing comprehensive training resources for those interested in learning about and implementing UFE, a process in which attention is constantly focused on the implementation of evaluation feedback by the primary intended users (typically a project leadership team) – those most likely to utilise the insights from evaluation because they feel a sense of ownership in the project's success.

The ROER4D management team was excited by the opportunity to implement UFE and stated in its scoping document that ROER4D would “retain the services of [DECI-2] to assist with the evaluation of and research communication within the ROER4D project as a whole” (Hodgkinson-Williams, 2013, p.24). For logistical and temporal reasons, ROER4D focused the evaluation process on the UCT Network Hub, which took primary responsibility for the management of the project’s adoption studies. These were the 11 sub-projects that were concerned with OER adoption, as opposed to the seven sub-projects managed by a Network Hub at Wawasan Open University in Malaysia that focused on impact studies.

ROER4D’s UFE framework

In UFE, evaluators facilitate a learning process through focusing on how central project management structures might apply evaluation findings and experiences. In ROER4D, the Evaluation Advisor collaborated with the UCT Network Hub in developing and implementing the evaluation approach for the project. Feedback and support was provided by DECI-2 at various intervals through discussion on strategy and the way forward, as well as through review and commentary on key constructs, such as key evaluation questions (KEQs) and measures.

The following focus areas – which were drawn from the broader set of project objectives¹ – formed the evaluation priority areas:

- Communication
- Research capacity building
- Networking
- Curation and dissemination

Communications and research capacity building were the main evaluation areas for most of the project. However, neither of these objectives, and therefore their evaluation, were isolated. In the ROER4D context, the communications, research capacity building and networking functions were mutually constitutive, with curation originally being integrated into the communications workflow.

Each of these objectives were associated with one or more outcome that the project hoped to achieve. Figure 1 indicates how the outcomes relate to the project objectives, as well as which project groups these outcomes relate to.

The critical elements in developing the ROER4D evaluation process were project scope, timeframe and context. In terms of scope, consultation with the UCT Network Hub regarding which areas of activity would benefit most from evaluation activity allowed the Evaluation Advisor to identify key evaluation areas. The project timeframe² was a key consideration in terms of assessing what it would be possible to measure and when it would be best to do so.

Another key consideration was the project’s explicit research capacity building focus, aimed at capacitating open education researchers in the Global South. Within the Network Hub structure there was also an ambition to grow expertise required to administer a

1 <http://roer4d.org/about-us>

2 The formal project timeframe was 2013 to 2017. The evaluation process was, however, focused on the first three years of project activity, as the final year was mainly dedicated to publishing and dissemination activity.

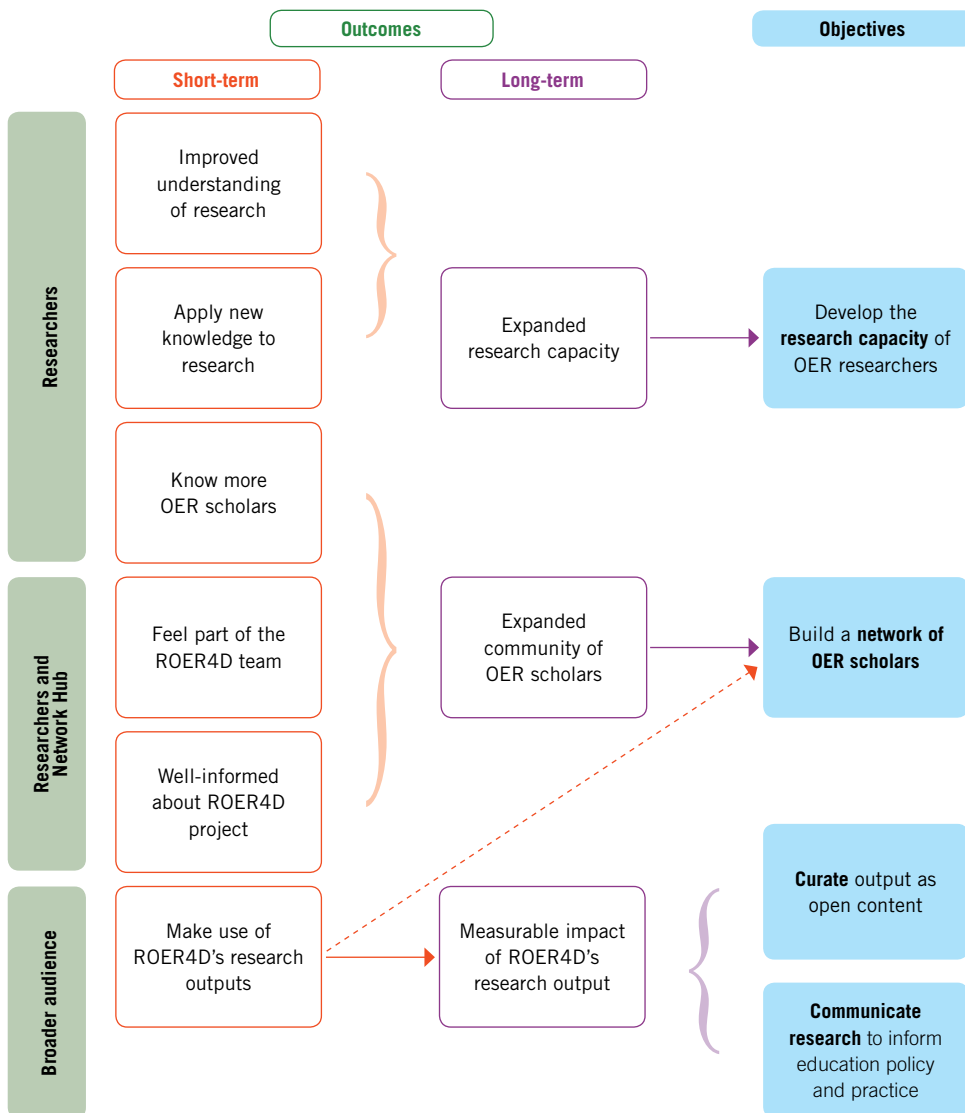


Figure 1: ROER4D project objectives and associated desired project outcomes

large-scale Global South networked initiative of this nature. This developmental focus informed the evaluation focus, in that research capacity building amongst researchers was prioritised in the first two years and communication of research outputs was the focus in the third year of project activity.

The 12-step UFE process

To aid clarity in the evaluation process, implementation was structured against the 12-step UFE framework. The main processes undertaken at each step are presented in a linear sequence here, but it should be noted that these steps are iterative in the implementation of the UFE framework and some elements of certain steps were repeated during the evaluation process. The 12 steps in the UFE framework, as applied by ROER4D, are presented in Figure 2.

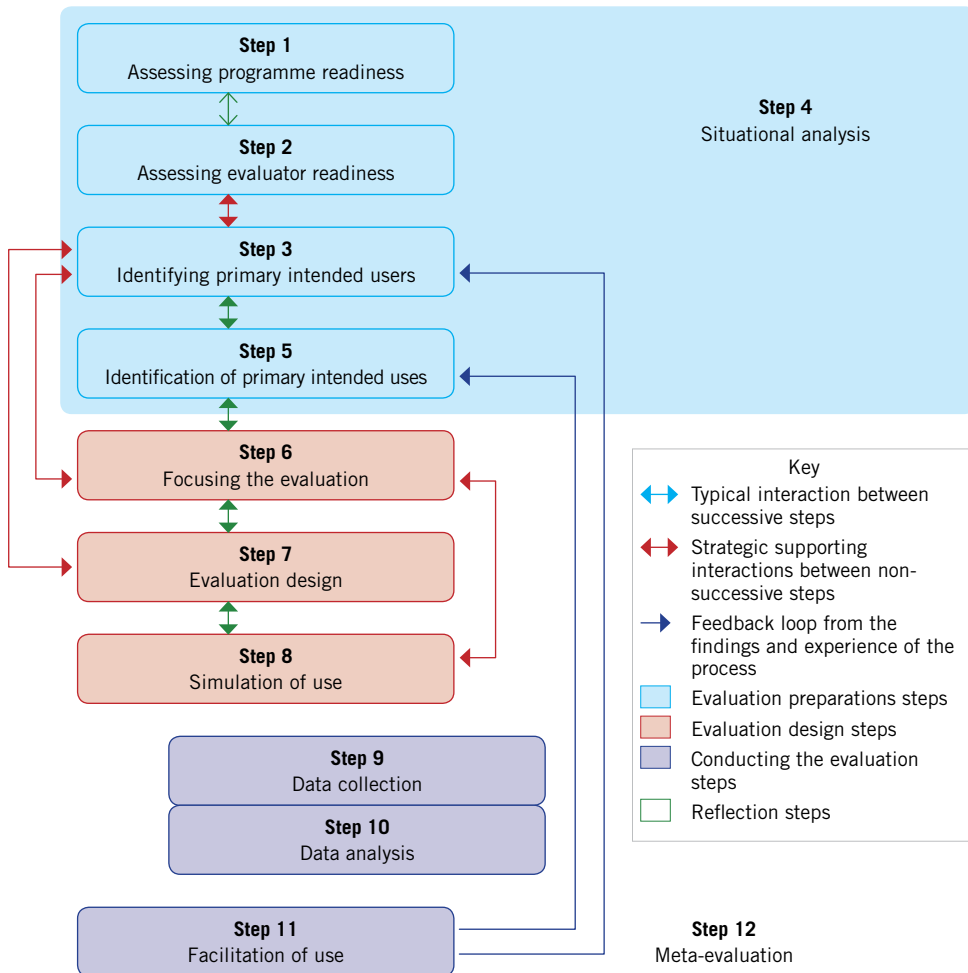


Figure 2: The 12-step UFE framework (from Ramirez & Brodhead, 2013)

Step 1: Assessing programme readiness

Programme readiness relates to the willingness of the project to participate in the evaluation process. A project team needs to be open to working with an evaluator in order to gain a better understanding of what is working in their project and where improvements can be made. For ROER4D, evaluation was a core component of the project's overall design and the UCT Network Hub endorsed the implementation of the UFE approach. Project readiness was realised in the first year of project activity when the Network Hub hired an Evaluation Advisor.

Step 2: Assessing evaluator readiness

At the start of the ROER4D evaluation process, the Evaluation Advisor had no experience in UFE but had reviewed background documents about the UFE process and expressed a commitment to focus the process on intended use by intended users. Throughout the evaluation process, the Evaluation Advisor continued to learn more about UFE, both independently as well as through Skype and in-person interactions with DECI-2 mentors. Readiness was thus achieved at various stages of the evaluation work in an iterative manner.

Step 3: Identifying primary intended users

The ROER4D Evaluation Advisor identified a group of primary intended users (PIUs) who agreed on a number of intended “uses”, providing an indication of what they expected to gain from the evaluation process. PIUs are those individuals who will make use of evaluation findings to make project improvements. This is a critical component of the UFE process, as it is the PIUs with whom the evaluator works to identify uses which help to set the direction and focus of the evaluation plan.

A basic stakeholder analysis was conducted through discussion with the UCT Network Hub. The PIUs within the UCT Network Hub structure for each key evaluation area were as follows:

- Research capacity building: Project Principal Investigator (PI) and the Research Capacity Building Officer
- Networking: Project PI
- Communications: Communications Advisor
- Curation: Publishing and Curation Manager and Project Curator

It was important to choose PIUs that were actively working in or had responsibility for a certain area of project activity, as they were best placed to articulate evaluation uses in their area of work, were most interested in findings, and most able to affect any recommended changes.

Step 4: Situational analysis

The geographically dispersed nature of ROER4D sub-projects across South America, Sub-Saharan Africa and Asia posed a challenge in terms of evaluation data collection. The project did, however, have well-developed online communication mechanisms which aided data collection and report development in the evaluation process. The project’s use of Google Docs for asynchronous contribution and document editing played a particularly significant role. Deadlines for feedback from evaluation processes were established according to key project milestones and IDRC reporting deadlines as the project progressed. For example, the Communications Advisor requested reports after several major conferences and additional summary reports for several objectives were produced quarterly.

In order to plot how the ROER4D project was to go about achieving its intended outcomes for its specific objectives, a logic model was prepared by the Evaluation Advisor in consultation with the UCT Network Hub. Constructing a logic model from the perspective of multiple stakeholders helps to achieve consensus and consolidate a project implementation plan. As a visual and systematic representation of the project, a logic model indicates the links between what resources the project has available, the activities planned and the results that should be achieved (WK Kellogg Foundation, 2004). The primary ROER4D logic model, which is the final iteration of a series of interim models over the course of the project, captures the inputs, activities, outputs and outcomes of the project up to end of the formal evaluation period.

A logic model of this kind helps the project and the evaluator identify what the key points in the project are, determine whether and how these key points can be evaluated, and can assist in formulating the right KEQs that need to be addressed. This high-level systematic description of how the project should ideally function allows for refinement

of the project implementation approach and the adjustments necessary to achieve the proposed final outcomes.

Step 5: Identification of primary intended uses

Primary intended uses for the evaluation were elicited from the UCT Network Hub at a workshop session. An example of such a use in the context of the communications objective would be “to improve ROER4D’s communication strategy”. These identified uses were modified and prioritised over the course of the project in combination with the articulation of new KEQs, which were prepared in line with the feedback received from DECI-2. This flexibility, enabled by the iterative nature of the UFE framework, meant that KEQs from the UCT Network Hub could be addressed by the evaluation process in a timely and productive manner.

Step 6: Focusing the evaluation

Formulating the KEQs in consultation with the UCT Network Hub was a means of focusing the evaluation. As the KEQs were associated with different intended uses by different PIUs, they were developed iteratively in line with overall project activity. An example of a KEQ for the communications objective was: “To what extent has the project gained visibility and credibility in the OER community?” Answering that question was intended to provide the Communications Advisor with a sense of whether ROER4D was improving its communications strategy (a primary intended use of evaluation feedback).

Step 7: Evaluation design

The final ROER4D evaluation plan is openly available online.³ In order to enable easier tracking of the evaluation progress and facilitate use by the PIUs, links to the tracking documents, in which data were collected, and the interim or final evaluation presentations and reports were included in the working version of this document.⁴ Figure 3 provides a snapshot of the evaluation plan, showing how the evaluation of the communications function proceeded and was tracked.

The methods and measures chosen for the evaluation process were informed by the data required to best answer the KEQs. Figure 4 provides an example of the uses, KEQs and measures of the communications objective. Graphic representations such as these provide useful visual summaries of what is being evaluated, how and why.

Step 8: Simulation of use

Simulation of use involves constructing possible results from fabricated data to allow for potential meanings, actions and uses to be investigated (Patton, 2008). Undertaking this step can be valuable in terms of ascertaining whether the evaluation plan as laid out in the evaluation design will be able to provide answers to the KEQs. Seeing what answers these simulations provide and how these different scenarios might influence evaluation use can inform changes to the evaluation plan before data is actually collected. Due to time constraints within the project, ROER4D was unable to undertake this step.

³ <https://docs.google.com/spreadsheets/d/16jv2FxFxQzu1xbJJsU93LZwID30V8eNANahdr-CZvxahU/edit>

⁴ This public version does not contain links to these documents which were for internal project use only.

	A	B	C	D	E	F	G	H	I	J	K
1		Use(s)	KEQ(s)	To assess: Numbered by relevant KEQ(s)	Evidence	Measurement(s)	What will be tracked/measured	Criteria of success/ feedback info	Next key deadline	Status?	Date
2									n/a	Completed	Updated up to end November 2016
3	Objective 4: Communicate research to inform education policy and practice	To improve ROER4D's communication strategy – with emphasis on visibility and research and practice outcomes (Obj. 4)	4.1 To what extent has the project gained visibility and credibility in the OER community	<ul style="list-style-type: none"> – ROER4D's social media presence; – established as a significant OER research project a) the Global South, b) globally; – ROER4D's communication channels/ approaches most effective for communicating about the project's key objectives 	Evaluation of our research communication activities, including: ROER4D website; Blogs; Events; Twitter profile; Facebook profile; External publicity; Global or local newsletters Look at both internal and external	Monitor social media activity (retweets, shares, etc.) and network grow – impact and uptake	TAGS (Twitter Archiving Google Spreadsheets) allows for an archive of all the Tweets containing a specific phrase to be accumulated for analysis. All tweets containing the phrase "ROER4D" were collected from the 11 November 2014. Analysis of the TAGS data includes: A summary of the top tweeters; A network diagram of replies, mentions and retweets Data from the start of the Twitter account (20 January 2014) – ongoing was analysed, looking at the: Number of followers; Followers' interested Followers' location; Followers' gender; Number of tweets per week and activity around those tweets A snaps hot of Twitter data for seven day window prior to the data collection is possible with NobeXL. This analysis included: A snapshot of the followers of the ROER4D Twitter account; A network diagram of connections between Twitter users who have used the phrase "ROER4D" in Twitter replies and mentions Facebook from FB insights			Completed	Updated up to end November 2016
4										Completed	Updated up to end November 2016
5								ROER4D's social media channels show an increase in follows/likes over time and sustained engagement; Identify which social media networks are most active		Completed	Updated up to end November 2016
6										Completed	Updated up to end November 2016
7							Slideshare (from notification emails): Views; downloads; favourites; embedded views; comments; tweets; likes			Completed	Updated up to end November 2016
8						Self-reported: Which team member; What was the feedback/request?; Who gave the feedback/request – person and organisation; When. Any context?		The community is increasingly aware of ROER4D and requests for dialogue and participation come in		Completed	Updated up to end November 2016

Figure 3: The ROER4D evaluation plan – measurements and key dates for the evaluating the communications function

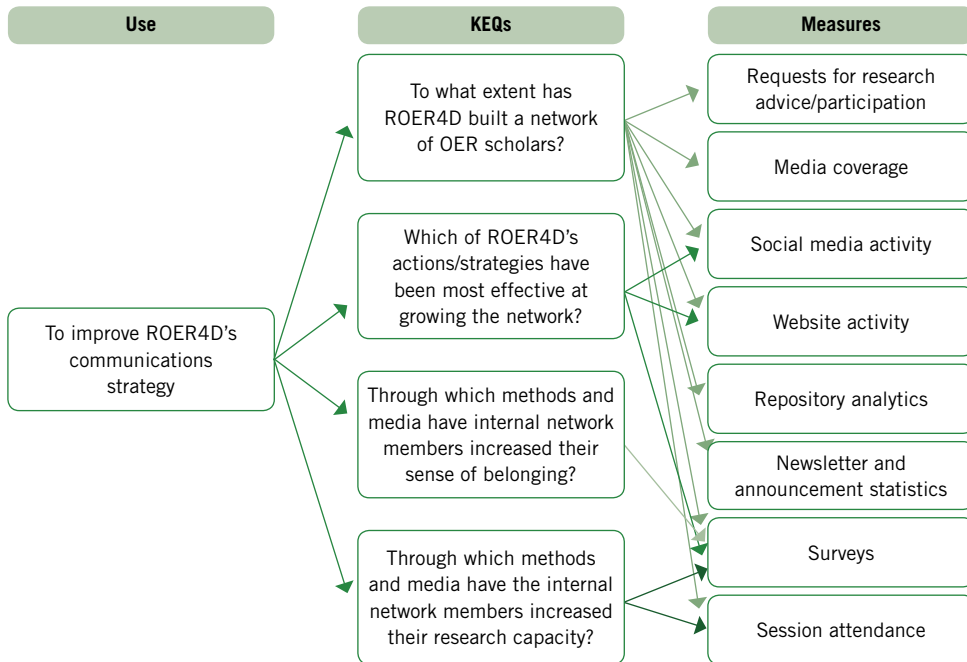


Figure 4: Use, KEQS and measures for the communications objective

Step 9: Data collection

Evaluation data were collected in line with the project evaluation plan, using surveys, interviews, focus group interactions, statistical monitoring, email interactions and other mechanisms. These mechanisms were tailored for the different stakeholder groups, with more statistical and quantitative methods being used to evaluate ROER4D's external engagement, and interviews and focus groups for internal communicative efficiencies. In the context of the communications objective, this involved monitoring social media activity using a variety of tools, such as Twitter Archiving Google Sheets (TAGS)⁵ and NodeXL⁶. Finding tools that automatically collect data (e.g. TAGS) or tools that allow for downloads of data collected for certain activities (e.g. MailChimp analytics data for the project newsletter and announcements) was helpful in terms of maximising limited project resources.

ROER4D's network meeting in Banff, Canada, in early 2015 provided an opportunity for more qualitative evaluation data to be gathered to measure the project's internal communications and research capacity development effectiveness. Data were collected through focus groups and interviews, supplemented by a post-meeting survey. Here, the Evaluation Advisor was able to provide a channel of communication between the UCT Network Hub and the sub-project researchers, surfacing data for internal critique of the project's developmental objectives. It also provided sub-project researchers with an opportunity to report on their experience of being part the ROER4D network.

Step 10: Data analysis

Method of data analysis was largely determined by the means in which the data were gathered – whether in a quantitative fashion through surveys, or qualitatively through focus

⁵ <https://tags.hawksey.info/>

⁶ <http://nodexl.codeplex.com/releases/view/117659>

groups and interviews. For instance, the communications data were analysed using several tools, including NodeXL, Excel and TAGS. The data analysis and presentation approach was determined as part of the evaluation design in order to maximise use by PIUs. In terms of tracking Twitter reach and engagement, analysing Twitter data to track ROER4D mentions was a useful means of identifying which individuals and organisations had an interest in the project (and, therefore, gain a sense of who could be further engaged).

Step 11: Facilitation of use

Given the iterative nature of the UFE process and the integration of the evaluation function in UCT Network Hub activities, use of evaluation findings could be incorporated relatively easily into day-to-day project operations. Relevant feedback on key areas under discussion could be provided to the UCT Network Hub during team meetings and special evaluation feedback sessions were scheduled to provide detailed feedback on evaluation findings for specific objectives. Information gleaned from the evaluation process was also provided to the Network Hub on request when they required feedback.

Through this collaborative working arrangement, the evaluation process was of benefit to the UCT Network Hub, with one member saying that it provided a “much clearer grasp of the effect of our past work and the direction that our future work should go”. An example of this in the context of the communications objective was the generation of evaluation reports on engagement with ROER4D blogs and newsletters, which provided the Communications Advisor with guidance on strategic implementation of the communications plan. Providing feedback on what was working at various intervals enabled the Communications Advisor to continue and amplify what was succeeding while making changes to what was not.

In the context of the project’s research capacity building agenda, findings from the data collected through these and other evaluation processes prompted the UCT Network Hub to move away from its initial focus on online, group-level synchronous meetings to more individually-based interactions. This was in line with the wishes expressed by the researchers, some of whom found it difficult to attend the online meetings at the preordained times and were keen to explore certain personal research matters in more depth with members of the Network Hub rather than in a group setting.

Given the time and resourcing constraints of the evaluation process, not all project objectives could be evaluated in an iterative fashion. Determining the successes of the curation and dissemination strategy, for example, could only be done in retrospect, which was not feasible due to the evaluation period ending before the project’s primary publication period in the second half of 2017. Recognising this as a problem for UFE’s developmental and iterative process, the Evaluation Advisor and Project Curator undertook a process in February 2015 to develop a list of curatorial best practices that would support the communications objective, such as an exploration of different curatorial platforms to host final ROER4D outputs. The outcomes of this process were later incorporated into a more comprehensive curation and dissemination strategy.

Step 12: Meta-evaluation

This step refers to the evaluation of the overall UFE process once it is complete. This meta-evaluation is more like a traditional evaluation process (done at the end of a project, providing a sense of “report back” on activities), as the PIUs would not necessarily have an opportunity to “use” the insights from a meta-evaluation in ROER4D itself. They would be able to use the insights in future projects, but not in the one that it concerns. For this reason, and due to time constraints at the end of the project, the Evaluation Advisor did not conduct a formal

meta-evaluation of the UFE process. That said, as the insights and utility of the approach were constantly discussed during the course of the project among members. These included discussions around questions that would normally make up a formal meta-evaluation process, such as the following:

For the process (i.e. activities of the Evaluation Advisor and Network Hub):

- To what extent did the evaluation process address questions relevant to the UCT Network Hub?
Evidence: Outcome of evaluation-focusing discussion (agreement of PIUs).
- To what extent did the evaluation process collect data to address the KEQs?
Evidence: Data collected to answer all the agreed-upon KEQs.
- Is the evaluation process producing useful outputs?
Evidence: ROER4D Network Hub requests and utilises outputs produced.

For the outcome (i.e. aim of the evaluation process):

- To what extent has the evaluation process increased the UCT Network Hub's knowledge of what can be improved?
Evidence: Specific requests for outputs by the team (demonstrating appreciation of the importance of evaluation findings). Examples of evaluation-oriented approach in meetings and team interactions ("How can we measure that?").
- To what extent are the evaluation process findings being utilised by the UCT Network Hub to improve the project?
Evidence: Changes made to project as a result of productive evaluation findings.

While the ROER4D Evaluation Advisor did not undertake a meta-evaluation process, it should be noted that DECI-2, as the project's evaluation mentoring partner, completed an overview and synthesis report on its work with ROER4D which assesses ROER4D's administration and use of UFE (Dhewa, Quarry, Ramirez & Brodhead, 2017). Their report provides insights on how they viewed the UFE process within ROER4D.

Recommendations for other Global South research projects

According to the ROER4D Communications Advisor, the "UFE process and its practical alignment with the communications function helped to highlight how important it was to develop clear and measurable communications objectives and outcomes, and to be open to reviewing and amending communications activities in response to feedback. This helped develop an agile and iterative communications mindset."

The benefits of the UFE feedback process were echoed by the Research Capacity Building Officer who said: "UFE was crucial in helping us understand, at multiple stages in the project, what research capacity needs the researchers had and how to best go about enhancing them. Without UFE, we would have had a much harder time getting the feedback we needed to do this work successfully."

Thus, as a project, ROER4D found UFE to be valuable for the constant monitoring of its activities with an eye to improving their work and responsiveness to the project's researchers. Devoting resourcing for the specific task of monitoring and evaluating processes against

mutually agreed-upon goals meant that the project had the benefit of someone who was embedded in the internal project operations and aware of the constantly-evolving environment in which it worked, while still retaining a critical eye on everyday activities.

Based on the evaluation activities undertaken by the ROER4D Evaluation Advisor in the three-year evaluation period from 2014 to 2017, the following recommendations are offered to similar large-scale, networked projects:

- Identify an appropriate framework for your evaluation activities (such as UFE). This helps the evaluator to structure their work and communicate it to the evaluation users.
- Structure the evaluation plan in a way that enables you to use it to track the evaluation progress. This will help to identify areas of the evaluation process that might need to be changed or discontinued.
- Don't be afraid to iterate. Revisiting certain steps in the evaluation process in response to new knowledge as you follow the process helps to strengthen your evaluation. In changing research environments (particularly those with an increased scrutiny on transparency, communication and openness), iteration can help in keeping the project current.
- In both internal and external evaluation, never underestimate the importance of iterative engagement. More engagement can result in a better understanding of the project and what matters to the evaluation users.
- Apply what you learn about what is ultimately useful (and not useful) by facilitating use of the evaluation findings and further refining the evaluation focus.

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