6. A two-phase framework for evaluation of OERRH

Hewlett Foundation evaluation principle 4 (Twersky & Lindblom, 2012, p. 5) states that 'we cannot evaluate everything, so we choose strategically', adding that decisions about what to evaluate are guided by criteria including the opportunity for learning. In addition, they warn that projects should 'NOT sacrifice relevance by having evaluation findings be delivered too late to matter' (Twersky & Lindblom, 2012, p. 16). Accordingly, the OERRH evaluation framework is structured on a two-phase basis intended to prioritise the opportunities for learning from the evaluation process and for effecting change informed by these learning opportunities.

Phase 1 comprises a process of formative evaluation focused on the project research and intended to inform decisions about data collection and analysis methods, the interpretation of the research data, and the strategy for disseminating the research findings (including the Evidence Hub). The formative stages of the evaluation process will allow for intervention in any aspect of the project that is in risk of falling short of agreed goals and, in turn, will help ensure that the interests of the various project stakeholders are served. The formative evaluation stages will also serve to strengthen and fine-tune key project processes through evidence informed collaboration between an Evaluation Fellow and the OERRH research team. As such, it is closely aligned with the Hewlett Foundation's evaluation principle 7 - 'We use the data!'.

Phase 2 - the summative stage of the OERRH evaluation process will allow the project outputs and outcomes to be assessed against the originally intended objectives, providing lessons for future projects in addition to evidence about whether the project has achieved its stated goals and has benefitted its stakeholders. The formative and summative evaluation of the OERRH project is intended to allow on-going monitoring of the project health, leading to evaluation-informed project development activities and the implementation of quality assurance at all stages of the project.

The results of both phases of the evaluation process will be openly shared with all interested stakeholders, in line with the Hewlett Foundation's evaluation principle 6 - 'We share our intentions to evaluate, and our findings, with appropriate audiences'.

6.1 Phase 1: formative evaluation of the research methods, analysis and dissemination

Phase 1 of the OERRH evaluation is a formative process, to take place at key points during the life of the project. The Phase 1 evaluation is intended to:

(a) locate the OERRH research findings in the broader context of existing OER research;
(b) evaluate the data collection and analysis methods;
(c) evaluate the ways in which ethical considerations are being managed;
(d) contribute to interpreting the research findings;
(e) evaluate the dissemination of the research findings.

6.1.1 What aspect(s) of the project should be evaluated?

Phase 1 of the OERRH evaluation focuses on aspects of Work Package 2 - 'Collaborative Research' and on Work Package 6 - 'Dissemination'.

6.1.2 Who is the evaluation for?

The Phase 1 evaluation is primarily intended to benefit the OERRH research team, helping them to strengthen and fine-tune their research strategy, as appropriate, throughout the life of the project. In addition, Phase 1 has relevance to the project stakeholder group as a whole in ensuring that the research is conducted to the highest possible standard and that the dissemination of research conclusions is as effective as possible.

6.1.3 What is it they want to find out?

The OERRH research team wish to find out about ways in which their data collection and analysis strategies could be improved/fine-tuned in order to better explore the OERRH research hypotheses. They also wish to find out whether the research conclusions derived from the collected and analysed data are valid and reliable and whether alternative conclusions and interpretations might be reached. The project team as a whole, in addition to the broader group of stakeholders identified in Section 5.3, wish to find out whether ethical considerations are being well-managed and whether the project dissemination strategy and activities could be improved in order to better achieve the project impact goals.

The Hewlett Foundation (Twersky & Lindblom, 2012, p. 14) assert the value of evaluation being 'guided by clear, crisp questions'. They explain that:

> Crafting a short list of precise questions increases the odds of receiving helpful answers—and a useful evaluation. Well-designed questions about an initiative or program can clarify not only the expected results but also surface assumptions about its design, causality, time frame for results, and data collection possibilities. These surfaced assumptions and questions can then help sharpen a theory of change and ensure effective planning for knowledge generation and learning.

The evaluation questions listed in Table 2 below give more detail about the areas that are to be investigated in Phase 1.

6.1.4 What evaluation methods will be used?

The Hewlett Foundation (Twersky & Lindblom, 2012, p. 17) point out that 'most strong evaluations use multiple methods to collect and analyse data' and that 'this process of triangulation allows one method to complement the weaknesses of another', adding that 'as part of early planning, it is ideal to select methods that match evaluation questions'. The Phase 1 suggested evaluation

methods are detailed in Table 2. They are designed to offer triangulation that should, in turn, maximise rigor and minimise bias, allowing for a comparison across investigators and data sources.

6.1.5 What changes will be made when the results are gathered?

Phase 1, being a formative process of evaluation, will allow the OERRH team to respond swiftly to any recommendations made by the Evaluation Consultant, with the aim of strengthening the data collection, analysis and interpretation process, ensuring that ethical guidelines are being followed and contributing to the development of an effective dissemination strategy. Twersky and Lindblom (2012, p. 20) suggest that 'from the very beginning of the evaluation process, it helps tremendously to plan how the results will be used; along the way, it is wise to remind yourself of those intended uses'. They recommend that 'often a short exercise of predicting the findings can helpfully surface assumptions about them and generate discussion about what might be done differently if these assumptions are not borne out'. This process of scenario-based reflection by all project team members is inherent to the Phase 1 evaluation process.

6.1.6 What are the evaluation criteria and what is their source?

The criteria for the evaluation are outlined very broadly in Table 2 and it is expected that the Evaluation Consultant will specify more detailed evaluation criteria for the research outputs based on accepted techniques for evaluating mixed methods educational and educational technology research in addition to an understanding of the project's stated outputs and outcomes as identified in the Project Plan.

6.1.7 When will the evaluation take place?

The evaluation timescale is specified in Table 2.

6.1.8 Who will be involved in the evaluation?

The Phase 1 evaluation will be structured around the evaluation framework detailed in this document and will involve all members of the OER Research Hub team, in addition to a Phase 1 Evaluation Consultant (EC) (to be appointed). It is recommended that the Evaluation Consultant should be someone with a good reputation within the open education/OER movement and a strong knowledge of current research developments in this field. It is also recommended that this person should have strong qualitative and quantitative research skills (covering both data collection and analysis). The Evaluation Consultant will work in close collaboration with the OERRH team to discuss the quality of their research outputs and the effectiveness of the research dissemination processes. More detail about the people involved in the Phase 1 evaluation is provided in Table 2.

6.1.9 What constraints will be placed upon the evaluation?

The main constraints on the Phase 1 evaluation will be the challenges of drawing together research data and findings from disparate sectors and contexts, where collaborations are working to differing timescales. (For example, while it will be possible to evaluate the Flipped Learning Network research methods quite early in the life of the project, the delayed start of the TESS-India (T-I) project will prevent evaluation of the T-I research methods until at least February 2014.)

6.1.10 How and when will the evaluation results be disseminated?

It is intended that the evaluation results will be promptly disseminated amongst the research team throughout the life of the project. The dissemination methods have yet to be finalised but it is likely that they will include fortnightly emailed reports to the entire OERRH team by the WP5 lead, covering evaluation-related issues, in addition to bi-monthly reports to the Work Package Leader's meeting by the WP5 lead. More detail is provided in Table 2.

Evaluation questions	Indicative evaluation methods and interaction with the project team	Timescale	Indicative recommendations informed by the evaluation process
Are the existing research methods sufficient for exploring the stated hypotheses?	● On-going researcher self-reflection, individually (e.g. at key decision-making points and pre-, during-, and post-visits) and collectively (e.g. at Reflection Away Day). A copy of any written reflection to be pasted into the Google Drive Reflection Diary to allow evaluation. ● Feedback from collaborations (especially post-research visits). ● EC assesses research outputs (e.g. the results of hypothesis sprints) for clarity, validity, reliability and robustness, as appropriate (in addition to other criteria, yet to be specified).	Team reflection: to start immediately. Other methods: To begin once the EC is recruited.	Additional research methods/approaches.

	● EC gives feedback to the project team.		
Are the analysis techniques appropriate to the data collected?	● Researcher/project team self-reflection, as above. ● EC feedback on research outputs to include consideration of the analysis techniques. ● EC discusses analysis techniques with the researchers involved and with the project team as a whole.	Team reflection: to start immediately. Other methods: At start of analysis process, once an analysis strategy has been produced, and at key points thereafter.	Additional analysis approaches and techniques.
Are the research conclusions **reliable** (free of measurement error) and **valid** (in terms of both internal and external validity)?	● Researcher/project team self-reflection, as discussed above. ● EC assess research outputs (e.g. the results of hypothesis sprints, blog posts, journal articles) for clarity, validity, reliability and robustness, as appropriate (in addition to other criteria, yet to be specified). ● EC gives feedback to the project team.	Reflection process to start immediately. Other methods: As and when research is reported in any format (including at key points during the analysis process).	Ways of improving the reliability of research conclusions. Identify invalid interpretations of the data and offer alternative interpretations/a different perspective.

Could the research hypotheses be explored in a different way?	● Researcher/project team self-reflection. ● WP5 Lead assessment of the Reflection Diary.	Reflection process to start immediately. Other methods: Periodically throughout the research life of the project.	Additional research methods/approaches/collaborations.
Are ethical considerations being managed appropriately?	● Reflection by the researchers and broader project team, recorded in the Reflection Diary and as incidents elsewhere. ● WP5 Lead assessment of Reflection Diary contents.	Reflection process to start immediately. Other methods: Periodically throughout the research life of the project, perhaps prompted by individual researchers.	Alternative/additional ways of managing ethical considerations.
Are the research findings being disseminated effectively, both through the Evidence Hub and through other dissemination methods (including conference presentations, journal articles, Twitter, the	● Reflection by the researcher and broader project team. ● EC evaluates the OERRH dissemination strategy and dissemination activities and discusses these activities with the project team.	Reflection process to start immediately. Other methods: Periodically through the life of the project.	Alternative/additional methods of dissemination.

OERRH website)?			
Are the research findings suitably contextualised within the broader context of OER/open education research?	● EC gives feedback on the ways in which research outputs (blog posts, sprint reports, journal articles) could be better contextualised in the list of recent OER/open education research findings.	Final six months of the project.	Links with other relevant research

Table 2: Details of the Phase 1 evaluation process

6.2 Phase 2: Summative evaluation of the project outputs and short- to medium-term outcomes

Phase 2 of the OERRH evaluation is a summative process, to take place towards the end of the project. The Phase 2 evaluation is intended to:

(a) evaluate a selection of the project outputs - the deliverables identified in the Project Plan - in terms of their quality, fitness for purpose and timely delivery;

(b) evaluate the project short-term and medium term outcomes, specifically the project's impact on the various stakeholders, its contribution to knowledge in the field of OER and open education research, and its sustainability beyond funding.

6.2.1 What aspect(s) of the project should be evaluated?

Phase 2 of the OERRH evaluation focuses on aspects of all 6 Work Packages, with particular emphasis on project outputs and outcomes. Further detail is provided in Table 3.

6.2.2 Who is the evaluation for?

The Phase 2 evaluation is intended to serve the interests of all project stakeholders (as identified in Section 5.3) whilst also allowing lessons to be learned that will be of benefit to the wider OER and open education community and which might inform future project planning.

6.2.3 What is it they want to find out?

The OERRH project stakeholders' needs are various and diverse and are mapped against the evaluation questions in Table 3 below. The stated evaluation questions are intended to structure the selective focus of the evaluation.

Broadly, the Phase 2 evaluation is intended to allow the OERRH stakeholders to find out whether key planned outputs have been delivered to a sufficiently high standard, allowing lessons to be learned about the challenges of working in an open, collaborative project and a clear account of the project legacy, as established through outputs such as the OER Evidence Hub, the Researcher Pack, the Ethics Manual and the Survey Bank. The Phase 2 evaluation is also intended to assess and identify the project outcomes and the extent of its impact in increasing knowledge and understanding about the impact of OER on teaching and learning and the barriers to OER use across the school, college and higher education sectors and in the context of informal learning.

6.2.4 What evaluation methods will be used?

As with the Phase 1 evaluation, the Phase 2 suggested evaluation methods have been chosen to provide both triangulation and the maximisation of rigour (without compromising relevance), while also allowing for as much collaboration and stakeholder participation as possible. As with Phase 1, a process of scenario-based reflection by all project team members is inherent to the Phase 2 evaluation process. Indicative evaluation methods are listed in Table 3 but these may change as it is envisaged that the Evaluation Fellow/Consultant will have considerable input in choosing evaluation methods. The Kellogg Foundation principle 'Allow for flexibility' becomes particularly pertinent in this context.

6.2.5 What changes will be made when the results are gathered?

As the Phase 2 evaluation will take place towards the end of the project it would be tempting to conclude that the evaluation results will have little value in terms of informing change. It is intended that the reverse will be true, however. The Hewlett Foundation principle 'Use the data!' has informed the specific focus of the Phase 2 evaluation to cover outputs that can be fine-tuned and further developed in the light of the evaluation findings, thereby better ensuring post-funding sustainability and a high quality legacy for the project. Similarly, evaluation of the short-term project outcomes should allow for action to be taken prior to the end of the project should it be found that the project impact could be enhanced in some way.

6.2.6 What are the evaluation criteria and what is their source?

The criteria for the evaluation are outlined very broadly in Table 3 and it is expected that the Evaluation Fellow/Consultant will specify more detailed evaluation criteria to allow evaluation against the project's stated outputs and outcomes.

6.2.7 When will the evaluation take place?

The majority of the Phase 2 evaluation process will be conducted from month 21 onwards.

6.2.8 Who will be involved in the evaluation?

The Phase 2 evaluation will be conducted either by a second Evaluation Consultant or an Evaluation Fellow. It is recommended that the Evaluation Fellow/Consultant should be someone experienced in project evaluation, with a strong knowledge of the OER movement and of current research developments in the field of OER and open education. As with Phase 1, the Evaluation Fellow/Consultant will work in close collaboration with the OERRH team to discuss the on-going evaluation findings and their implications for further developing the project outputs and maximising its outcomes and impact. More detail about the people involved in the Phase 2 evaluation is provided in Table 3.

6.2.9 What constraints will be placed upon the evaluation?

Time pressures are the main constraints placed upon the Phase 2 evaluation, in that while the evaluation will need to be performed fairly late in the project's life to get the most accurate picture of the extent to which the project outcomes are being achieved, the evaluation also needs to be sufficiently early to allow for developmental action based on the evaluation findings. It is recommended that the evaluation of the project outputs is conducted first, to allow for timely development of these components of the project.

6.2.10 How and when will the evaluation results be disseminated?

It is intended that the evaluation results will be promptly disseminated amongst the project team through the evaluation process, to allow for developmental action on the basis of these results. A publicly available evaluation report will also be produced covering the complete Phase 2 evaluation.

Evaluation areas and questions	Related stakeholders	Possible evaluation methods and interaction with the project team	Timescale
WP2 OUTPUT/OUTCOMES: The research. Q1: To what extent does the research conducted and data collected allow conclusions to be reached about the	Hewlett Foundation, OERRH project team, collaborating projects, the OU, IET, OER community of users and	(1) Draw on the evidence gathered in Phase 1 to inform evaluation findings. (2) Evaluate the Researcher Pack/Survey	Month 21 onwards.

veracity of the 11 OERRH hypotheses? Q2: Have the WP2 deliverables (e.g. the Researcher Pack and Survey Bank) been produced to time and are they of suitable quality? Q3: Have ethical considerations been managed effectively? Q4: How has the adoption of an open research approach impacted on the project outcomes?	researchers	Bank. (3) Draw on Phase 1 ethics-related evidence. Evaluate the management of ethical considerations and production of a final OERRH Ethics Manual. Interview researchers on this topic. (4) Evaluation of the use of open access publishing and social media in dissemination activities. Evaluation of the impact of the OERRH open data policy. Evaluation of the OERRH open conference.	
WP3 OUTCOMES: The collaboration program. Q1: In what ways, if any, has the collaborative research benefitted the collaborating projects (including benefits enjoyed by collaboration-linked fellows)? Q2: Has the collaboration program delivered the intended scope, as outlined in the bid document. Q3: In what ways, if any, has the Fellowships Program benefitted OERRH stakeholders and helped to achieve the project outcomes.	Hewlett Foundation, OERRH project team, collaborating projects.	(1, 2 & 3) Survey/interview contacts in collaborating projects, including collaboration-linked fellows.	Month 21 onwards

WP4 OUTPUTS & OUTCOMES: The Evidence Hub. Q1: Is the Evidence Hub an effective platform for disseminating the project research findings, linking those findings with other research, and allowing users to conduct tightly focused searches of OER-related evidence? Q2: To what extent, if any, does the Evidence Hub allow for post-funding project sustainability?	Hewlett Foundation, OERRH project team, collaborating projects, the OU, IET, OER community of users and researchers	(1 & 2) Evaluation of the Evidence Hub usability, scope and sustainability. Interview/survey Evidence Hub users and interview the project team (especially WP4 Lead).	Month 21 onwards
WP5 OUTPUTS & OUTCOMES: Q1: Does the Evaluation Framework provide for effective evaluation of the OERRH project? Q2: Is the Evaluation Handbook a clear guide for others intending to evaluation OER and open education research projects?	Hewlett Foundation, OERRH project team, collaborating projects, the OU, IET, OER community of users and researchers	(1 & 2) Evaluation of the Evaluation Framework and Evaluation Handbook. Interviews with Project Team.	Month 21 onwards.
WP6 OUTPUTS & OUTCOMES: Q1: Are the research findings being disseminated effectively?	Hewlett Foundation, OERRH project team, collaborating projects, the OU, IET, OER community of users and researchers	(1) Draw on findings from the Phase 1 evaluation. Interview Fellowships & Collaborations Manager. Perform impact review.	Month 21 onwards.

Table 3: Details of the Phase 2 evaluation process

7. Conclusion

While the OERRH Evaluation Framework set out in this document contains some amount of detailed guidance about the ways in which the two phase evaluation process should be performed it is not intended that this guidance should be prescriptive or restrictive. Indeed, it is hoped that the eventual evaluation phases will be shaped by all stakeholders in the project, allowing for an organic evaluation framework that is sufficiently flexible to accommodate and meet the changing shape and needs of the project and its stakeholders. Above all, the main aims for the OERRH evaluation process should be borne in mind at all times - namely to strengthen the project throughout its lifetime and to ensure that the project impact is maximised and its post-funding legacy and sustainability are ensured.

8. References

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