University of Dundee

IKT for Research Stage 7

Fang, Mei Lan; Battersby, Lupin; Cranwell, Marianne; Cassie, Heather; Fox, Moya; Sterlini, Philippa

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An Integrated Knowledge Translation
Toolkit for Open Research

IKT for Research Stage 7: Reporting

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Background

In 2020, the University of Dundee initiated the development of an Open Research strategy. As part of this initiative, in February 2021 the University's Library and Learning Centre together with Open Research Champions from the Schools of Health Sciences and Dentistry, formed an Open Research Working group. To build on the University's open research policy and infrastructure, the purpose of the group was to facilitate ongoing research and development of best practice approaches for our interdisciplinary environment to make outputs, data and other products of our research publicly available, building on University of Dundee's Open Research policy and infrastructure.

Through informal consultations with academic staff and students, the Open Research Working Group found that:

→ access and reach of research findings can be amplified through effective knowledge mobilisation, and stakeholder and patient and public involvement; and

→ there was a need for guidance and resources on how-to implement knowledge mobilisation activities with and for stakeholders throughout the entire research process – *from proposal development to project completion*.

In June 2021, the Open Research working group, in partnership with Simon Fraser University's Knowledge Mobilization Hub began the development of an Integrated Knowledge Translation (IKT) Toolkit, with funding support from the University of Dundee's Doctoral Academy and Organisational Professional Development. IKT is an approach to knowledge translation that emphasises working in an engaged and collaborative partnership with stakeholders throughout the research cycle in order to have positive impact.

The aim was to co-produce evidence-informed, best practice learning materials on how-to:

→ maintain ongoing relationships between researchers, community stakeholders and decision-makers in research development and implementation; and

→ facilitate an integrated, participatory way of knowledge production whereby researchers, practitioners and other knowledge users can collaborate to co-generate new and accessible knowledge that can be utilised in contexts ranging from supporting community development to policy guidance for practice.

The IKT Toolkit was informed by a focused evidence review and synthesis of published peer-reviewed and grey literature and consists of 8 knowledge briefs and a slide deck co-produced for use in any discipline or sector. Each knowledge brief provides practical guidance and resources to support an IKT process in each of eight key research stages: (i) Partnership Building; (ii) Generating Priorities and Ideas; (iii) Proposal development; (iv) Study Design; (v) Data Collection; (vi) Data Analysis; (vii) Reporting and (viii) Dissemination.

The current knowledge brief provides IKT guidance on Research Stage 7: Reporting.

What is 'reporting' in relation to IKT in research?

Stage 7 of IKT informed research is about 'reporting' with stakeholders. Reporting of IKT research has three significant areas of consideration for the team: facilitating a collaborative and inclusive process (Flicker & Nixon, 2018); considering the implications of reports for partners (Kemmis et al., 2014); and, ensuring effective reporting on the involvement of stakeholders in the research project (Jones et al., 2021). Reporting outputs will depend on the audience, the scope of the project, funder expectations, needs of the stakeholder, and the findings themselves. The degree of partner involvement in developing outputs needs to be determined in collaboration with the team and the community partners (Sixsmith et al., 2021). Ideally, this is discussed in stage one of the research cycle with agreements or understandings being revisited at this stage. Boxes 1 and 2 present key principles and a checklist for how to do effective IKT in Research Stage 7: Reporting.

BOX 1: IKT Principles for Research Stage 7 – Reporting

1 People who live and work in the community who are involved as project partners are part of the reporting process – with their level and type of involvement tailored to the project (Jones et al., 2021).

2 Consider what resources partners and researchers have available and their level of interest in being involved in reporting, which might include their time, amount of staff support, level of interest and familiarity with the topic and scope (Polk, 2015).

3 Take time upfront to identify potential political, ethical, or practical conflicts of interest that may arise when the research is reported and made public, for the partners, particularly named contributors. (Flicker & Nixon, 2018).

4 Together with people who live and work in the community, decide on a reporting plan that meets the needs of all involved. Include output types (peer review publication, presentation, film, policy brief, etc.), who will be involved, and how authors or contributors will be acknowledged (Kemmis et al., 2014).

5 Work with partners to identify resources and strategies to support active participation. Consider non-traditional modes and methods for eliciting contributions to the outputs (Flicker & Nixon, 2018).

6 Provide transparent and accurate reporting of both the IKT aspects of the project and the findings, using a reporting guideline can help (Simera et al., 2010).

7 Always close the loop, ensure you report back to all those involved in the project, including participants, on the findings in a manner that is accessible and useful for them (Kemmis et al., 2014).

BOX 2: IKT Checklist for Research Stage 7 – Reporting

		Yes	No
1	Have you provided an open and accessible space for the people who live and work in the community to contribute to the reporting plan?	Yes	No
2	Have you ensured that the reporting plan and the content of the outputs take into account partners' needs and preferences and are not unduly influenced by researchers alone?	Yes	No
3	Have you explored and discussed the risks and benefits of reporting on the research findings?	Yes	No
4	Did you include appropriate and timely reports back to participants and other stakeholders in your plans?	Yes	No
5	Have you recognized the contributions of all the people involved appropriately and sufficiently?	Yes	No
6	Do the people who live and work in the community that partnered with you feel celebrated for the contributions they made to the project and the outputs?	Yes	No
7	In reporting outputs, will readers be able to understand what you did, with whom, and how, such that the findings could be used to inform future research, policy, or practice?	Yes	No

How can 'reporting' be enhanced by applying IKT mechanisms and activities?

At this stage of the research process, the real potential for impact begins to emerge in taking an IKT approach. Collaborative development of outputs from the research can increase transparency, accuracy, and legitimacy of the research findings and reports (Grigorovich et al., 2019). For partners, it can be empowering and rewarding to see the research process and findings come together into recommendations, tangible outputs, and to see ones' name in print. As you collaboratively develop outputs, you may see findings begin to influence or inform partner organizations or communities even before the materials are shared. Partners will also help identify and develop outputs that are relevant and accessible to your audiences. Boxes 3 and 4 offers case examples of effective IKT implementation in Research Stage 7: Reporting. Key messages from each case example are highlighted in bold.

BOX 3: Case Example 1 – Open-access writing

McGrath (2016) reports on using an open-access research blog to collaboratively produce a pure mathematics research article. McGrath investigated the on-line co-authorship system that was facilitated by an open-access research blog: Polymath. While the blog united mathematicians in solving open problems, it also sought the input of non-specialist participants. The participants collaborated on the open-access blog and used a wiki for materials. The theorem was collaboratively proven on the blog, then a coordinator (similar to a principal investigator in the research context) posted an announcement notifying the writing of a research article had started. Writing the article involved multiple threads initiated by the coordinator who addressed where the writing was at and what needed further work. While the article was written for submission to a peer reviewed journal, the authors were motivated to write for a broader audience. The feedback from non-experts resulted in a more accessible and thoroughly explained argument. **A key implication was that the co-produced publication had emerged from a truly open and collaborative process which produced a more transparent and accurate report of the research. This method of collaborative writing has the potential for capacity building across a diversity of participants, while supporting interdisciplinary and cross-sectoral working, allowing for contributions where the participants felt they had strengths. As well, the on-line format supported geographic accessibility.**

BOX 4: Case Example 2 – Intersectoral team

Bird and colleagues (2019) applied an IKT approach to their research on improving participation in community-based exercise for people after they had experienced a stroke. **A project advisory group was developed which included members of all stakeholder groups: people with lived experience of stroke, family caregivers, practitioners, fitness instructors, and decision makers.** A two-step research design allowed for all participants to engage in both contributing to the data generation and analysis and for developing and then refining the programme recommendations. **The advisory group were actively engaged throughout the research process both through consulting on design and data analysis and also in contributing to recruitment and other project activities. All team members, including the advisory group members, were named as authors, alongside their respective roles on the project and how they contributed to the project paper.** All team members were involved in reviewing and providing feedback on the paper. While this level of engagement in the writing may be considered consultative, it is an important and viable option when taking an IKT approach. The team were all acknowledged as authors of the paper which was an important demonstration of respect, appreciation, and recognition. With the contributions indicated, it ensured that the reader knew who were involved and how. The paper was developed after a conference presentation which also listed members of the advisory group.

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Resources

1 Citizen science reporting, Scotland's Environment
   environment.gov.scot/get-involved/submit-your-data

2 Citizen science and food
   food.gov.uk/research/research-projects/citizen-science-and-food

Contributors and Contact Information

Academic Team

Dr Mei Lan Fang is the Project Lead and Lecturer (Assistant Professor) in the School of Health Sciences at University of Dundee, Dundee, Scotland, United Kingdom

Dr Lupin Battersby is the International Project Co-Lead and Knowledge Mobilization Officer in the Knowledge Mobilization Hub at Simon Fraser University, Burnaby, BC, Canada

Marianne Cranwell is the Lead Researcher and PhD Student in the School of Humanities, Social Sciences and Law at University of Dundee, Dundee, Scotland, United Kingdom

Dr Heather Cassie is a Project Co-Investigator and Baxter Fellow in the School of Dentistry at University of Dundee, Dundee, Scotland, United Kingdom

Dr Alex Gardner is a Project Co-Investigator and Lecturer (Assistant Professor) in the School of Dentistry at University of Dundee, Dundee, Scotland, United Kingdom

Dr Jenna Breckenridge is the Project's Knowledge Mobilisation Expert Informant, and Lecturer (Assistant Professor) in the School of Health Sciences at University of Dundee, Dundee, Scotland, United Kingdom

Library and Learning Services Team

Moya Fox is a Project Co-Investigator and Senior Research Support Officer (Research and Resources) in the Library and Learning and Centre at the University of Dundee, Dundee, Scotland, United Kingdom

Philippa Sterlini is a Project Co-Investigator and Research Support Officer (Research and Resources) in the Library and Learning and Centre at the University of Dundee, Dundee, Scotland, United Kingdom

Dr Thomas Curtin is a Research Publications Support Officer in the Library and Learning and Centre at the University of Dundee, Dundee, Scotland, United Kingdom

Further information

For more information about the IKT Toolkit and University of Dundee's Open Research Working Group please contact Dr Mei Fang at **mlfang@dundee.ac.uk**

Notes and reflections