Ho, W.W.S. 2013. Tools and Methods.
Guidelines for knowledge integration: navigating a myriad of perspectives.
Knowledge Management for Development Journal 9(2): 190-197
http://journal.km4dev.org/

TOOLS AND METHODS

Guidelines for knowledge integration: navigating a myriad of perspectives

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This contribution provides guidelines on how to develop knowledge integration. The guideline was originally developed for Hivos, an international development organisation located in The Netherlands. Although knowledge integration approaches have been introduced some years ago to tackle complex issues, application by a wider audience has encountered several obstacles. This guideline provides parameters for the use of knowledge integration in social change and innovation programmes. It aims at demystifying the concept by providing practical advice for three sets of professionals: managers overseeing social change programmes, professionals designated as knowledge workers, and programme staff in general. It ends by describing the sequencing of a generic knowledge integration process. Although operational, this sequencing draws on theoretical models rooted in learning and organisational change theories. It will help to weigh choices, to think through, explain and justify activities given the complexities of an emergent approach and a multitude of parties involved.

Keywords: knowledge integration; practice; Hivos; social change and innovation; development projects; knowledge workers; tools

Introduction

Organisations are working to bring about social change in an environment which is being transformed. These organisations need to face, among other challenges, the battle to produce data and information that can withstand the scrutiny of different stakeholders. In addition, scrutiny needs to be applied not only to the data and information itself, but also to the way they have been produced. At the same time, complexity is increasing both of the context in which they work and of the way issues need to be approached. One way to handle these contextual and methodological complexities is by developing the practice of knowledge integration. Hivos defines knowledge integration as:

> *… a knowledge development methodology that integrates various forms of (new) knowledge – academic, practitioner, educational and cultural expressions of knowledge – from which new insights can be created and strategies formulated that contribute to the development of new policies and practices for the development sector.* (Hivos 2012)

Hivos decided to create a set of guidance notes to take on different aspects of knowledge integration processes. A first set has been developed to help 'unpack' knowledge integration (Ho, 2013). In addition, some guidelines have been developed to support the creation of knowledge which is robust enough to generate a theory-driven change process. These

guidelines have not been developed for academics but, rather, for an audience that wishes to use KI to achieve social change and innovation.[1] KI is not reserved for experts but, rather, takes place everywhere. Hence, although the emphasis may differ, the issue of how well one deals with KI and what could be improved touches upon the work of all development practitioners.

How do we do it?

General guidelines: knowledge integration as a frame of mind

A first suggestion refers to the role and function of social change professionals. As the issues at stake become less clear-cut, and intervention approaches more complex, the roles and position of social change professionals change. Instead of strict requirements for technical project management skills, nowadays social change professionals need to employ a more 'web-like' way of thinking and operating. In this regard, skills and knowledge that gain in importance are, for example, process facilitation skills, including conflict management, negotiation, and supporting collective sense-making and analysis.

A second suggestion regards to the fact that there is so much available in terms of tested tools, methods and approaches while, at the same time, the environment is changing very rapidly. In consequence, staff needs to keep asking themselves what is still relevant and valid, and what can be improved. This requires a continual browsing of one's own and allied disciplines.

Staff also need to be able to distinguish between statements based on ethical ideas, opinions, and beliefs about what is effective (so-called *normative statements*), from ones that are derived from more tested sources (so-called *substantive arguments*).[2] These two types of statements cannot be lumped together in processes of analysis, planning, monitoring or appraisal, as they derive from, and result in different qualities of what can be considered valid evidence. It requires investment in critical questioning, for example, by organizing peer inquiries, or by setting up a Socratic, knowledgeable committee, to which project proposals have to be submitted. Investing in making 'how do you know?' a commonly asked (and authorised) question will support a move from implicit reasoning to a more knowledge-based performance. It will help to explain the evidence hidden in the implicit reasoning.

Guidance for a manager in knowledge integration

By definition, knowledge integration initiatives involve interactions with and decisions by other stakeholders that can lead to surprises. It is not easy for a manager to accept the consequent low degree of control and apparent lack of steering mechanisms. Arguably, there are a few guiding notions that he or she can use to navigate this difficult terrain, namely: cost effectiveness and evidence-based working; and reframing result-based management (RBM) in knowledge integration.

Cost effectiveness and evidence-based working

In general, organisations need to define more clearly where knowledge and learning fits into their own theory of social change. The adoption of Theory of Change as a planning and programming approach comes with the demand to learn faster and earlier whether assumptions or hypothesis about how to bring about change are partly true or false, and whether they need to be replaced by more valid ones.[3] There is a great need to distinguish

facts from assumptions built into the design of all development programmes, including knowledge-focused ones. Requesting staff to make this learning process more explicit and better documented (rather than having it take place in their heads) will lead to more evidence-based practice and decision-making. KI process monitoring requires different formats than for example a monthly report. Rather than taking a month or any other time period, a change in course or decision can be used as a yard stick for documentation. This also links better to the use of Theory of Change as an overarching framework for operation. Even with many unknowns and other uncertainties, there is no need to wait years before articulating lessons for use in guiding next steps. Examples of cases and tools already exist.[4]

Moreover, bearing cost effectiveness in mind, a new knowledge initiative[5] need not be designed as if it were a journey to an unknown land. Planning, monitoring and implementation of initiatives can greatly benefit from what is already available in terms of intervention theories, methodologies and experience base. Building on hard-won experiences and knowledge gained over years, across disciplines and sectors, helps to avoid reinventing wheels and throwing scarce resources down the drain. Executives can ask their staff to put much more emphasis on an intake and exploration phase that incorporates purposeful scanning. However, they will need to be mindful of the tricky part, in other words: 'When to cut off initiatives that venture beyond the umbrella as opposed to when to enlarge the umbrella to recognize their benefits?' (Mintzberg et al., 1998: 227). Some guidance on how to navigate this is provided below.

A related issue is the need to strengthen awareness and understanding of the costs of a methodology or mode of operation (including time as a scarce resource). This does not mean going further down the road of more formats and protocols: initiatives can be requested to document in a cursory manner resource requirements of methodologies and processes. In this way, a more complete understanding can already be gained of whether complex approaches such as, multi-stakeholder knowledge integration, are useful; what their added value is, and when their use does not make sense.

Reframing result-based management (RBM) in knowledge integration
By definition, knowledge integration harbours many unknown unknowns. Therefore, linear planning and monitoring approaches are not very useful. However, if we do not use logframes, how then can RBM be translated for knowledge integration? For a manager to oversee programmes with KI dimensions, two sets of criteria can be used to guide monitoring of what is happening:

1. *Divergence and convergence*: it is important to perceive pilots as divergent practices that can generate innovative ideas and experiences. However, at some point in time, such an experimental initiative needs - in whatever way - to institutionalize in order for the organisation to learn and absorb the useful parts. This needs to be build into an initiative (and monitored by management), else it can lead to wasted efforts.

2. *Discerning and systematizing*: as mentioned before, normative statements cannot be lumped together with substantive arguments. By tracking and distinguishing these arguments in analysis, appraising, monitoring and claim-making, while encouraging staff to systematically move bits from the first (normative arguments) to the latter category (substantive arguments), a programme (and the wider organisation) can generate more

robust ways of working and learning. In order to arrive at this point, understanding needs to be strengthened of how to discern between anecdotes and knowledge created in more robust ways. Staff need support in asking the 'how do you know'-question, they need capacity building in responding to it, and those who ask that question may require moral backing.

Guidance for knowledge workers

This section provides advice for those who are knowledge focal persons in organisations or networks, such as team members of Hivos' Knowledge Programme. First, it is important to underline that knowledge integration demands a multi-disciplinary approach and understanding, where knowledge links different theoretical fields to one another. Making conscious connections between knowledge, learning and fields related to individual, organisational and societal change and innovation can increase effectiveness of programmes with a KI dimension. Examples of change and innovation related fields are: behavioural change, group dynamics, cognition theory, facilitation methodologies, approaches to negotiation and conflict management, theories of organisational and institutional change, and (innovation) systems thinking. One important consequence of making these conscious connections is that it becomes easier to position knowledge as a driver in a change and innovation process, thereby helping to make porous the divides between knowledge and so-called regular programmes. In the end, combining insights and principles from these fields can make coaching of colleagues and support to programmes more comprehensive and targeted.

Second, not all situations or interventions require an open-ended, intensive and demanding process and accompaniment. A very rough rule of thumb whether it is worthwhile to embark on a knowledge integration journey is: the higher the degree of complexity in a situation and intervention, the more worthwhile a knowledge integration approach. The weighing scale is to be benchmarked for each organisation. Therefore, the knowledge worker should provide programme staff and interested persons not with toolboxes that have been copy-pasted from others, but with categories that make sense to them. These can, for example, be categories such as highly complex (e.g. system innovation of dairy sector value chain), moderately complex (e.g setting up a district education committee) and low complexity (build a community centre). Per category, he or she can suggest generic approaches which can be tailor-made according to specific needs. These categories need further refinement. The degree of simplicity or complexity of a context and intervention depends also on the phase and level of intervention (e.g. local or regional), as well as other possible shifts that may take place during a process (e.g. actors moving in or away). An example of a simple context is a malaria outbreak, after which the strategy will be to introduce bed-nets to reduce cases of malaria. An example of a complex context is climate change. Here, 'the right strategy' (or even the problem itself) is disputed, the process involves many stakeholders, and therefore, the intervention will follow an exploratory character. To make knowledge integration work, organisations and professionals need support to distinguish situations and phases of intervention processes, to consequently diversify their strategies. To conclude, as the degree and interactions between complexities change over time,[6] staff needs support from knowledge workers *and* management to perceive KI not as piecing together discrete bits of knowledge, but as a process of communication and interaction requiring hands-on accompaniment. Desk-study will therefore get one only so far.

Guidance for programme staff

Anyone working on social change including those in development cooperation, notices the widening range of stakeholders involved in programmes and projects. Intervention approaches regularly require the involvement of a range of experts, including lay experts, with each bringing along own values and knowledges.[7] This creates situations in which activities unwittingly carry knowledge integration components and result in a more noticeable degree of complexity. Therefore, project management experience alone no longer suffices. Not taking this into consideration when designing, monitoring and evaluating development interventions will lead to reduced success.

KI urgently needs some demystification. Behind the concept of knowledge integration, a host of approaches, practices and tools that already have been piloted and tested, are readily available. Often, finding the answer to the question *what* to use *when* in a KI approach does not require too much effort. For example, one set of very relevant methodologies, processes, skills and facilitation tools can be found in approaches developed for multi-stakeholder settings. These settings require, among others, an understanding of and support for negotiation and conflict resolution processes. Process facilitation, social mapping tools or methods to increase the understanding of factors that influence network performance, can be found in handbooks on multi-stakeholder processes. As KI generally entail working with different stakeholders, a great part of what has been piloted and tried for multi-stakeholder approaches can be used to catalyse and support KI approaches. Other areas of theory and practice offer similar ready-to be-tried options. The crux lies in doing just that: putting in the extra effort to find out what is already known, and what is in fact unchartered territory. For this, it is necessary to critically scan different horizons: a tool that may not have been used before in one sector may have been used for years in another with its pros and cons already documented.

So, in summary for those who hesitate, there is the stick (there is no excuse: KI is not a 'far from my bed show') and the carrot (it is not something alien: many of KI's building blocks contain familiar elements).

Phasing of a generic knowledge integration process

As KI approaches are complex interventions used in complex situations, complexity theory puts forward the principle of following an emergent approach. Simply stated, an emergent approach boils down to patiently allow the path forward to an agreed (albeit not necessarily clear) horizon to reveal itself, instead of attempting to impose a course of action.

Nevertheless, an emergent approach in the design and implementation of a KI process can be phased. This phasing of a KI process can be done in such a way, that KI connects to learning and changing. For this to happen, the phasing has to obey two logics. Both logics are theory-rooted, one in an organisational learning theory (single- and double-loop learning processes), one in a theory of organisational change (freeze-rebalance-unfreeze). Both logics generate a helix-like process, namely a process formed by winding sequences or phases around an imaginary cylinder or cone.

The helix of single and double loop learning processes (Argyris and Schön 1978)[8]
In single-loop learning, individuals, groups, or organizations modify their actions according to the difference between expected and obtained outcomes. In double-loop learning, the validity of values, assumptions and policies underpinning the actions in single-loop learning, are questioned, analysed and modified. The learning helix is built up by single- and double-loop learning sequences or phases. It can be constructed as follows. A first sequence of single-loop learning focuses, for example, on piloting. A second sequence of double-loop learning then aims to articulate lessons to strengthen theoretical understandings. This can be followed by a third sequence of single-loop learning, in which, based on the lessons, new pilots are set up to further practice. A fourth sequence can then generate double-loop learning, for example, thorough comparative analyses of programmes. These are examples of useful articulations to identify general guidelines or develop general frameworks, which can then further practice. In this way the helix of learning leads to a strengthened and expanded theoretical and practice base.

The helix of freeze-rebalance-unfreeze
The second helix derives from organisational change theory (Weick and Quinn 1999)[9]. It builds around processes of joint sense-making and interpretation of information by winding sequences of freeze-rebalance-unfreeze-freeze-etc. To *freeze* is to make patterns visible, for example, by collectively creating a story of change. To *rebalance* is to reinterpret, re-label and re-sequence the patterns, so that blockages are better understood and overcome. To *unfreeze* is to resume the process or action in ways that are now more mindful because of the incorporation of lessons and insights gained in the rebalancing. There can be as many as 6 spirals of this second helix during a three-year project period, for example, by 'freezing' activities undertaken and results gained through six-monthly staff retreats or community reviews.

Creating one composite helix for a generic knowledge integration process[10]
A KI process can be composed by stitching together phases or sequences from these two helixes of learning and changing. Again, using these helixes to guide choices about the design and fine-tuning of a KI process creates an intimate relationship with changing and learning. Nevertheless, exactly how to weave them together in one KI helix with how many spirals made from how many sequences from one or the other helix depends on the specific situation and issue at hand. A taster of the general sequences or phases of a KI process can look like:

1. Creation of first single loop learning
    a. Scanning: for this programme, what are tried and tested concepts, methodologies and instruments; what can be their added value to bring about desired changes; what situational characteristics need to be taken into consideration when using these concepts, methodologies and instruments?
    b. Piloting: formulating hypotheses (theory of change and theory of intervention)
2. Creation of first double loop learning by interweaving with the change helix:
    a. *freeze* – reflection on results:
        i. articulation of lessons learnt in relation to hypotheses: creation of strong case studies (empirical base)
        ii. articulation of lessons learnt in relation to knowledge base (from scan)
    b. *rebalance* – introducing changes in response to lessons learnt
3. Creation of second single loop learning by interweaving with change helix:

   a. *unfreeze* – furthering practice in second project phase
4. Creation of a second double loop learning by interweaving with the change helix:
   a. *Freeze* – reflection across a number of pilots
      i. articulation of lessons learnt in relation to hypotheses; and systematize across pilots
      ii. articulation of lessons learnt in relation to knowledge base (from scan); and at meta-theoretical level
   b. *Rebalance* – introducing changes in response to lessons learnt

Importantly, the phases of in knowledge integration process are not limited to one party only. Different phases or sequences of both the learning and changing helix are designed as joint exercises that bring in sub-groups of parties each with their own knowledges. Who makes up the sub-groups of a particular phase depends on the objective of that specific sequence and its intended contribution to overall goal of the KI process.

With a demanding and often mystified approach like knowledge integration, it can help to give the 'beast' a name, for example, by using a term like sequencing. However, the importance of the logics of the two helixes and their consequent KI composite is that they allow one to weigh choices, to think through, explain and justify the sequencing of activities notwithstanding the complexities of an emergent approach and a multitude of parties involved.

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[1] A forthcoming publication explains how to use knowledge integration to generate evidence: Ho W (2013b) (Forthcoming) 'Creating robust evidence through knowledge integration. Working paper. Centre for Development Innovation, Wageningen UR (University and Research centres), Hivos: The Hague.

[2] Statements gain robustness by making reference to how data on which they are based have been obtained, and clarifying what validity they have (e.g. under what circumstances, for what socio-economic groups etc.).

[3] Various resources are available on: http://www.hivos.net/Hivos-Knowledge-Programme/Themes/Theory-of-Change. For a case description, see: Ho W. (2008) 'Onverstoorbare gedrevenheid: NGOs als waarden-volle makers van maatschappelijke innovatie'. M&O – tijdschrift voor management en organisatie. Kluwer: Deventer.

[4] For this, various tools already exist. See, for example, the tools explained in 'Reflexive Monitoring in Action'. Van Mierlo et al., 2010; or examples described in Syscope (http://www.wageningenur.nl/nl/Onderzoek-Resultaten/Projecten-EZ/Magazine/Syscope.htm)

[5] New in terms of actors, or themes, or ways of working etc.

[6] For example, there are interdependencies between the content of an intervention and the complexity of arena's where stakeholders interact. E.g. holding climate change talks in a different arena changes the content of negotiations.

[7] Intervention approaches such as value chains or market development can involve, for example, vocational training schools, producer organisations, marketing boards, agricultural universities, rural banks, trade unions, and health agencies.

[8] Argyris and Schön first coined these terms in 1978. Here, triple-loop learning is avoided as it has generated some conceptual controversy.

[9] In an important and widely used publication, Weick and Quinn (1999) argue for an intervention theory based on the understanding that change is continuous rather than discontinuous. They state that change therefore follows the sequence freeze-rebalance-unfreeze.

[10] For a detailed description see the Hivos guidance notes (Ho, 2013) on which this paper is based.