

Qualifications frameworks and theories of change: **an analytical and evidence-based approach to policy making**



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Introduction >>>

Education reform both in developed countries and international development contexts has tended to be based on a set of assumptions about what constitute effective levers of reform. One such example is the idea of national qualification frameworks (NQFs). It is asserted that the development of NQFs can drive up the quality of professional education and training and improve access and quality. Given the large investments in education reform that continue to be made both by donor organisations and national governments, it is important that the veracity of the claims made for any particular lever of reform is examined dispassionately.

This paper suggests that theory of change methodology can provide a helpful way of looking at such assumptions and evidence. It will set out the rationale for using theories of change and look at the importance of: being clear about intended impacts; analysing all assumptions about cause and effect; and seeking evidence to test assumptions that underpin any theory of change, such as how to ensure decent and sustainable work. It will first examine a simple theory about how pupil learning achievements can be improved, before turning to the global development of sectoral qualifications frameworks¹ (QFs) that is relevant to early childhood care and education (ECCE) in Uganda. The paper will then contextualise the discussion in the context of ECCE qualifications pathways.

Background: Theories of change and results chains

Using a theory of change has become an increasingly common approach in project management, notably in international aid projects. A theory of change specifies all the elements necessary to achieve a given goal and defines the linkages between these elements.

The elements commonly used by donor agencies, such as the UK Department for International Development (DFID), are:

Inputs, outputs, outcomes, and impact link together in a results chain that illustrates expected cause and effect. Sometimes, it is necessary also to define Intermediate Outcomes to capture all causal links. A very simple example of a results chain is set out below.

¹The literature has developed around NQFs. However, the concepts and issues in question are equally applicable to sectoral qualifications frameworks such as in the ECCE sector.

- Impact – the broad ‘social good’
- Outcome – a change in system or social conditions that should help bring about the impact
- Output – a change that is brought about by inputs and that is likely to lead to – or contribute to the achievement of - the outcome
- Input – an activity designed to bring about an output.

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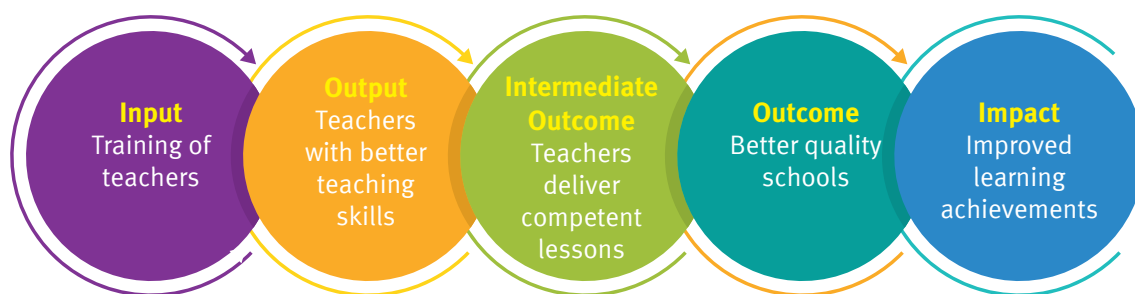


Figure 1: Example of a simple Results Chain

It should be noted that, the higher the level in the results chain, the greater the uncertainty that the expected result will materialise. Thus, in the example in Figure 1, the input ‘teacher training’ should, if performed competently, lead to an output such as ‘teachers have improved teaching skills’. However, whether the teachers actually put this training into practice, i.e. deliver effective lessons (an intermediate outcome indicator which would be an aspect of the outcome of ‘better quality schools’) might depend on other factors, such as quality of resources, head teacher leadership and support, and the teacher’s own motivation.

This shows the first benefit of the theory of change approach: it challenges simplistic ideas on how to bring about effective change. For a long time, international education aid programmes were based on the overly simple assumption that better teacher training would lead to improved learning achievement. In fact, there are many possible barriers that may materialise, such as:

- Teachers lacking the confidence or motivation to apply the skills they have learned;
- Teachers being constrained by other factors that affect intrinsic motivation;
- Schools lacking the necessary resources or supporting environment;
- Lack of parental support for pupils;
- Pupils being unable to learn because of tiredness or hunger.

Using a theory of change is a means of trying to ensure that all major relevant factors are taken into consideration. We will return to the example in Figure 1 towards the end of the paper.

Having drafted a broad theory of change, the next steps are to articulate the assumptions implicit in the results chain and to ask whether evidence exists to support each assumption. If the evidence does not exist, as often it won’t, then the design of the change initiative should include mechanisms to test the efficacy of each link in the results chain. The use of theories of change is now explored further in relation to QFs.

What is a Qualifications Framework? >>>

A Qualifications Framework is an instrument for the development and classification of qualifications according to a set of criteria for levels of learning achieved. It is an instrument for the development, classification and recognition of skills, knowledge, and competencies along a continuum of agreed levels. Further, it is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. A QF indicates the comparability of different qualifications and how one can progress from one level to another and across vocational and academic fields. It is, therefore, the basis of a career pathing system.

The goals or purposes of introducing QFs normally include some or all the following, grouped under two broad headings:

Lifelong Learning

- Improving understanding of qualifications and how they relate to each other
- Improving access to education and training opportunities and making progression routes easier and clearer
- Increasing and improving credit transfer between qualifications
- Increasing the scope for recognition of prior learning (RPL).

Quality

- ensuring that qualifications are relevant to perceived social and economic needs
- ensuring that education and training standards are defined by agreed learning outcomes and are applied consistently
- ensuring that education and training providers meet certain quality standards
- securing international (including regional) recognition for national qualifications allowing transferability of qualifications and mobility of learners.

What are the conditions for successful implementation of QFs? >>>

Despite a history beginning in the 1990s or earlier, the scope of QFs, their role in achieving educational or labour market goals, and the most effective means of implementing them, remain contested issues. Various commentators began using the experience of first generation NQFs to draw lessons about QF implementation. One of the key lessons was that QFs could not be seen in isolation and were unlikely to achieve their stated aims without being situated in a broader policy context.



‘A National Qualifications Framework is only a framework. It can play a vital role in supporting reforms but if it is not part of a wider strategy, it may achieve very little. There can be exaggerated and unrealistic impressions of what the building of an NQF can achieve in isolation from other developments. The key to successful NQF implementation is to develop a broad strategy that takes account of all factors influencing success.’ (Tuck, 2007 p.vii)



The conditions for successful QF implementation, as identified by a range of commentators, include:

1. Policy coherence across different ministries;
2. An enabling funding regime;
3. Support to education and training institutions including provision of resources and professional development;
4. Genuine support and trust for the QF among stakeholders;
5. Paying careful attention to the institutional context;
6. Development of communities of trust.

The identification of these conditions emanated from a number of sources. The first was the recognition of the need for policy breadth. If QFs were to contribute to the ambitious goals intended by policy makers, then an approach focused only on qualification design and assessment and quality assurance methodologies is inadequate. It is essential to recognise that QF implementation must: involve a wide range of stakeholders in government, civil society, and private sector; include complementary initiatives that bring about real changes in institutional practices; and be properly costed and funded.

Associated with the concept of policy breadth is recognition of the need to move beyond the intrinsic logic of QFs and consider institutional logic. In simple terms, organisations and individuals have certain interests, opinions, and constraints and will not always behave ‘rationally’ in terms of policy logic. In particular, there is a need for ‘communities of trust’, so that all stakeholders have faith in the new arrangements and the various partners involved in them.

To date, however, debate around QF purposes and implementation has not progressed beyond these general lessons and exhortations such as for greater policy breadth. The central thesis of this paper is that what is now needed is a rigorous methodology for change. This methodology should situate QF development as a set of inputs which, alongside other inputs, can achieve clearly defined objectives. It is also necessary to have evidence to support any assumptions that particular inputs are likely to produce the desired outputs and outcomes. It is the emphasis on evidence of what works and what doesn’t work that has the potential to change the terms of the debates around NQF implementation.

Could a theory of change help in the development of an ECCE QF in Uganda? >>>

To consider how a theory of change might apply to the implementation of a QF, we should start with intended impact(s) and work back to outcomes and outputs. Interestingly, if we look at various NQFs around the world and ask, ‘what is the intended impact?’ we make the surprising discovery that the answer to this question is usually far from clear.

The rationale for any QF usually consists of a set of purposes, such as:

- establish national standards of knowledge, skills, and wider competencies to ensure the relevance of qualifications to national economic and social needs.
- establish national quality standards and systems for quality assurance of providers, programmes, delivery, and assessment.

- establish clear progression pathways and facilitate procedures for access to learning and transfer and recognition of learning.
- provide a means to benchmark qualifications nationally and internationally.

It is clear that none of these purposes are impact statements, that is none of them define a 'social good' such as improved learning or more competent workers. Furthermore, it is not clear whether the purposes are outcomes or outputs. Take, for example, the two purposes that relate to 'establishing standards'. What do these statements mean? Are standards established when there is a document that clearly articulates the standards? On this interpretation, the standards are outputs. Or do these purposes imply that the standards are understood and accepted by the relevant stakeholders? On this interpretation, the standards are outcomes.

Both of course are valid interpretations of the purpose statement. The point is that if we want to achieve a certain impact, then we need to ensure that we are aiming to achieve outcomes that are likely to lead to the achievement of this impact – and not merely an output that is a step towards the outcome. Second, we need to be clear about the meaning of any element (impact, outcome, or output) if we are to be able to tell whether we have achieved it.

These are quite tough questions but essential if the discourse on QFs is to progress beyond rhetoric to reality and implementation. The following test is proposed: successful achievement of the impact should be defined along with valid and reliable means of evaluating success. If this cannot be done, then the venture is essentially a blind one. On the positive side, defining success clearly should help greatly to focus QF developments and provide more evidence of success than has hitherto seemed possible.

What, then, is the impact that might be hoped for, from the further development and improvement of the ECCE QF in Uganda? On the reasonable assumption that ECCE is aiming to provide as high a quality of education as possible to as many children as possible, we might define the desired Impact as:

'All pre-primary children in Uganda have access to ECCE that provides a good foundation for their primary education.'

The next question is what outcomes (changes in systems and social conditions) would be necessary to achieve the desired impact? The following outcomes are suggested:

1. There must be an adequate supply of qualified teachers

What are the current barriers to achieving this outcome? One barrier might be that ECCE is not attractive as a profession. Another might be the lack of a pathway for those without good academic qualifications but with the potential to develop the required competences to teach effectively in ECCE. The development of a more 'practical experience-based' route alongside the academic route could help to address the second problem and might help the status of ECCE teaching to some extent, but other issues such as pay levels may also need to be addressed.

2. These teachers must be capable of teaching and supporting children competently

The achievement of this outcome depends firstly on high quality teacher training. A rigorous quality assurance and accreditation system as part of a QF – one that defines institutional roles and responsibilities well – could help to ensure that high standards are clarified and thus easier to maintain as well as trusted within the sector. However, even well-trained teachers may not

teach effectively if they lack good learning and teaching resources or if they feel unmotivated. Problems of motivation may arise because of unsatisfactory terms and conditions or simply because teachers don't feel valued and lack professional self-esteem. This highlights the important role played by ECCE centre owner and head teachers (and also local government officials) and by parents and the community in creating a positive pre-school ethos.

3. Head teachers must support and monitor quality of learning and teaching

International research suggests that the role of head teachers is crucial for school quality – whether secondary, primary or pre-school. They can help to create a positive climate for learning, support teachers through mentoring and school-based professional development activities, do their best to ensure the provision of adequate resources, involve parents and community in the life of the pre-school, monitor the quality of teaching and learning and lead efforts in quality improvement. Head teacher training is therefore critical. So is support from local government through effective planning, budgeting and monitoring.

4. Parents and the community must support learning

Research also shows that parents have a crucial role in shaping the child's attitude to learning. ECCE is more effective when it is based on a school-parent partnership through which parents are able to support their child's learning. At a very practical level, the community can also perform an important service by ensuring that children do not arrive at school tired or hungry or unable to learn and that they have the basic resources (e.g. paper and pencils) for learning.

These considerations would suggest a Results Chain along the lines of Figure 2 below.

Figure 2: A Results Chain for the Ugandan ECCE System

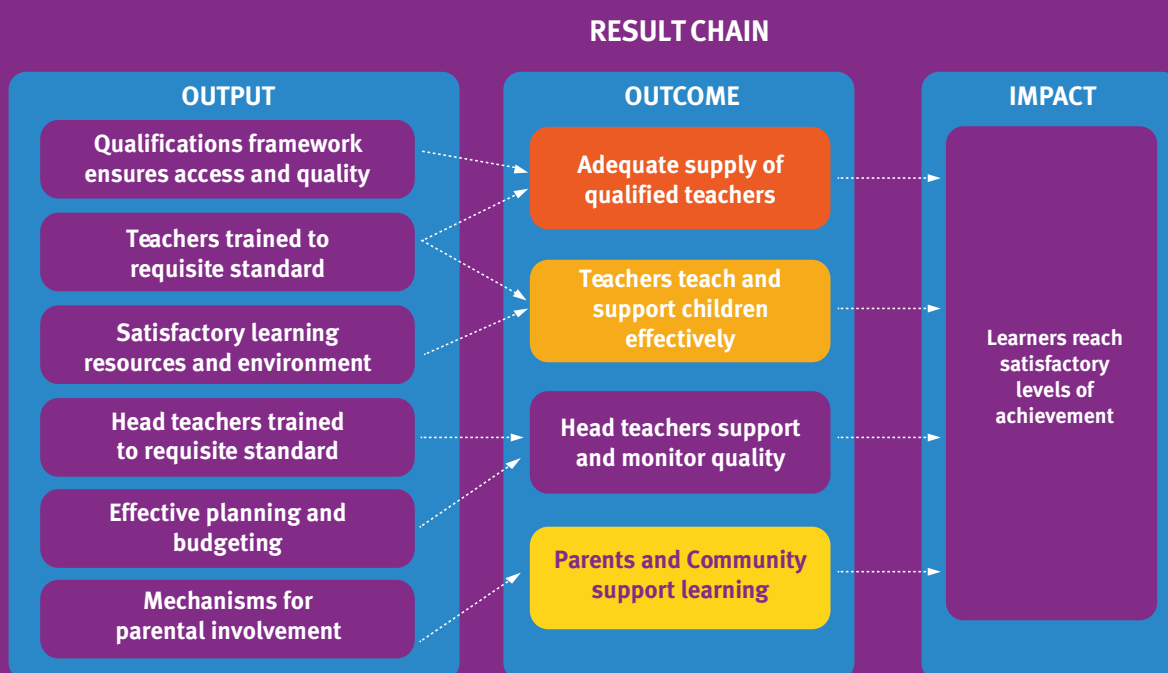


Figure 2 presents quite a simply results chain and is intended to be indicative rather than definitive. It could provide the starting point for discussions among stakeholders. It is interesting to note that QF development could contribute to some of the necessary changes, but not all, thus reinforcing the point that a QF is not a ‘silver bullet’.

Further questions to be asked would include:

- Is the theory plausible? Does it include all the important factors?
- What assumptions are being made? What evidence is there to support these assumptions?
- Which are the weakest links in the chain?
- What evidence should we be planning to collect?

The first question would simply involve stakeholders drawing on their experience to brainstorm other relevant factors. The next question is more difficult. It involves us in challenging our own casual assumptions. We may believe that A leads to B leads to C, but do we have any evidence for this belief? And for what links in the chain is the evidence particularly weak? What are the additional factors that we might need to take into account?

A lack of evidence is not a reason for abandoning a theory of change that has surface plausibility. However, it might suggest the need to gather evidence in the course of implementation to determine whether the assumptions are holding true.

Such an interrogation should lead to a more refined theory of change, a degree of consensus among stakeholders and an implementation plan that includes testing of assumptions through gathering of evidence.

When there is consensus around the theory of change as a basis for a development initiative, further steps are required:

- Defining the inputs that should lead to the desired outputs;
- Defining, in a measurable way, all the impact, outcome and output statements (to provide objective measures of progress/success);
- Gathering data to establish baselines for all elements in the theory of change;
- Establishing monitoring mechanisms to gather data in the course of implementation (including qualitative information and feedback so as to be able to analyse causes of success/failure and thus prove/disprove assumptions).

Summary and Conclusions >>>

This paper suggests that the use of theory of change methodology could provide a way of analysing and articulating the steps necessary to achieve desired goals and identify the assumptions that underpin the belief that the said steps can achieve the desired goals. All assumptions may then be analysed to identify whether there is evidence to support them. If not, reform may still proceed on the basis that the assumption seems plausible but the implementation methodology should include measures to gather the evidence that will support or challenge the assumption. Ultimately, the use of a theory of change could help to define more clearly how development of the ECCE Qualifications Framework could contribute to defined policy goals in Uganda.

References

Tuck, R. (2007). *An Introductory Guide to National Qualifications Frameworks: Conceptual and Practical Issues for Policy Makers*. Geneva: ILO.

Early Childhood Care and Education Think Piece Papers

A Set of ECCE Topics for Consideration in Uganda

