DRAFT PAPER: STRATEGIC SELECTION OF INDICATORS

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Approaches to monitoring, evaluation and learning (MEL) are undergoing a data revolution. Yet with greater complexity, there is a need for selecting indicators strategically to heighten data validity and ensure indicators reflect strategic aims. The paper therefore sets out criteria for making strategic selections of indicators.

INTRODUCTION

In the past, organisations have been able to build accountability by counting simple outputs such as the number of beneficiaries reached. While it is still important to document project deliveries, organisations are increasingly expected to also prove their contributions by collecting data on complex change processes. These processes span programmes deliveries and intangible change such as advocacy and capacity building in changing policy environments.

This has led the organisations to explore various indicators to account for previously undocumented aspects of their interventions. These range from quantitative indicators based on numerical values to qualitative indicators that summarise narrative stories of change.

Yet organisations often express doubt about whether their chosen indicators reflect the aim of the enquiry when reporting to donors or other stakeholders. For example, it sometimes proves impractical to aggregate numerical indicators due to varying policy environments across different country programmes. At other times, organisations realise that the chosen indicators do not support their needs for narrative accounts in reporting.

To address these challenges, this paper sets out criteria for strategic selection of indicators. Strategic selection refers to a purposeful selection of indicators, reflecting the requirements to manage project implementation and to report externally as well as defining linkages between indicators and an underlying theory-of-change. Although indicator selection should always be done using context-specific knowledge, it is hoped that the criteria listed here will help to guide such considerations.

STRATEGIC SELECTION

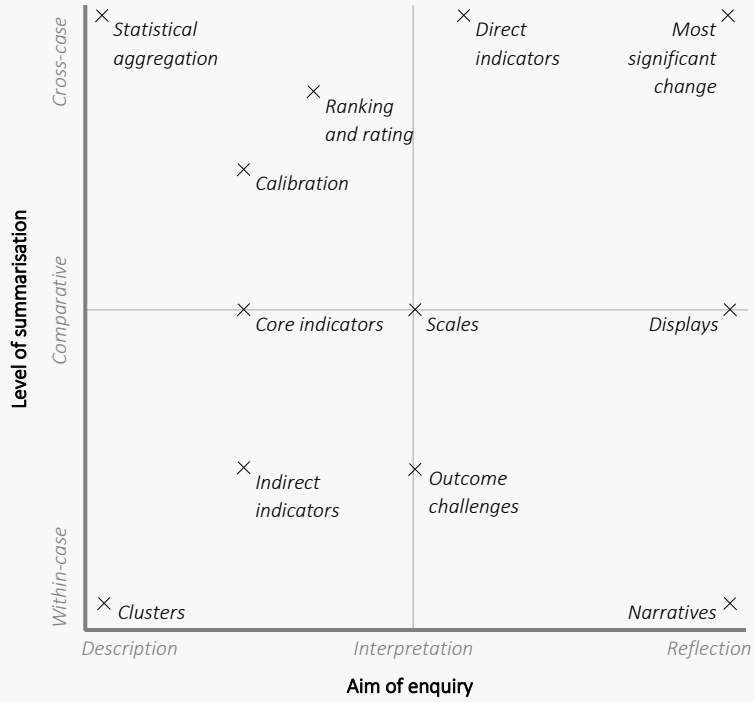
Communication is an important end-goal of most MEL approaches. Reporting to stakeholders is in large parts a communications exercise to build accountability, while learning typically rests on a communicative flow of ideas amongst staff and partners. Yet organisations often bypass the end-goal and define indicators from a technical point of departure through questions like: what indicators do we need to aggregate results upwards?

Instead, it is vital to take a step back and first envision the end-goal that the MEL-system is aiming to support. This should ideally be defined before data is collected and researchers refer to this stage as *ex-ante*. It is almost impossible to change indicators once data collection has begun, although there are some complex tools for dealing with this (researchers refer to this as *ex-post*). For simplicity, the paper will only consider indicator selection prior to starting the data collection.

The strategic selection can be divided into three overall steps to clarify the purpose behind indicators:

- *Step 1: Define the purpose of collecting data*
  Organisations typically have two overall purposes with collecting data: internal project management to monitor progress and communicating change to stakeholders. It is thus important to start the selection by answering the following strategic questions:
  - What is our purpose with collecting data and how does it relate to our theory-of-change? Do we want to build accountability, support project management or facilitate learning?
  - Who is our target audience that will see the output from the data? What claims and key messages do we want to communicate?
  - What does the output look like? Are we aiming to write reports, make presentations or produce other deliveries?

Chart 1: Selecting indicators by aim of enquiry and level of summarisation



- *Step 2: Define plausible linkages*
  Once the purpose is known, it is necessary to define what data are needed to operationalise the purpose. This does not entail defining indicators just yet, but envisioning what information is necessary to establish a plausible linkage between activities and results, e.g. uptake of advocacy amongst municipalities or levels of satisfaction:

  - What plausible linkages can we envision between our purpose with collecting data and the actual outcome or impact?
  - How do we limit the number of plausible linkages, so we focus resources on the most important claims and key messages?
  - Are there any linkages that don't support the purpose directly and can could be deselected?

- *Step 3: Select indicators*
  It is useful to view indicators as a proxy for the plausible linkages between own activities and the actual outcome observed in real-life contexts. Indicators are thus constituted by observable actions, events or subjective opinions. These are different from plausible linkages that defines the assumptions for how indicators are interpreted. These assumptions usually form part of a theory-of-change.

  Selecting strategic indicators thus evolves around the following question, which is dealt with in more detail through the criteria listed in the next section:

  - How do we select indicators that act as a proxy for the plausible linkages and the purpose behind the data collection?

SELECTION CRITERIA

This section sets out criteria for qualifying discussions on indicator selection. It does so by directing attention to two fundamental aspects in selecting indicators, ensuring the right match with the ***aim of enquiry*** and the desired ***level of summarisation***. These are illustrated on Chart 1 and will be discussed in detail below.

There are, however, endless possibilities for categorising various types of indicators. The following should thus primarily be viewed as an approximate categorisation to direct attention of MEL-teams towards the most likely fits between indicators and the defined purpose.

Aim of enquiry

The first criteria when selecting indicators pertains to the *aim of the enquiry*, i.e. what the organisation will use

Table 1: Understanding approaches to aim of enquiry and level of summarisation

	Methodology	*Pros and cons*
Description	▪ Research questions focus on describing values, e.g. "how many" / "how much" ▪ Deductive/closed questioning, i.e. defines enquiry prior to data collection	▪ *Pros:* Numerical values often appears more scientific and can pre-empts questioning ▪ *Cons:* Aggregations can easily lead to misinterpretations and lack vital detail
Interpretation	▪ Research questions focus on interpretation, e.g. "how does X compare to Y" ▪ Iterative approach that shifts between deductive and inductive enquiry	▪ *Pros:* Compromise of quantitative and qualitative approaches, allows for interpretation ▪ *Cons:* Interpretation may be biased to subjective views and may misrepresent data
Reflection	▪ Research questions focus on reflective narratives, e.g. "how", "why" and "what" ▪ Inductive/open questioning, i.e. defines enquiry before and/or after data collection	▪ *Pros:* Reflection to uncover unknown aspects and facilitate learning/innovation ▪ *Cons:* Narratives are often seen as less scientific and may be less persuasive
Within-case	▪ In-depth reflection of individual cases without comparisons across other cases	▪ *Pros:* In-depth case knowledge that often generates new insights into the case ▪ *Cons:* Knowledge cannot be generalised to other contexts, must be done for each case
Comparative	▪ Comparison of quantitative or qualitative data across cases to reflect on similarities and differences	▪ *Pros:* Allows for comparisons across cases without low level of detail in aggregations ▪ *Cons:* Comparing across cases can be prone to biases and ignore context-specific details
Cross-case	▪ Aggregates data across cases, using either statistics or criteria for summarising narrative stories of change	▪ *Pros:* Aggregates data across many cases. Produces accessible overviews for donors ▪ *Cons:* Can lead to misrepresentation and ignore important details from cases

data for. Indicators have traditionally been divided between quantitative indicators – that document information using numerical values – and qualitative indicators that document information using narratives. Here three overall approaches can be identified:

Description is the primary purpose behind quantitative indicators. This is because they aim to summarise information using numerical values. For example, we cannot deduce additional information from statistical figures such as mortality rates than the overall numbers.

Interpretation represents a possible compromise between quantitative and qualitative aims of enquiry, as it combines the functions of description and reflection. This is for example done by assigning numerical scores to cases based on qualitative knowledge.

Reflection is the primary purpose behind qualitative indicators, as they enable reflection on a wider process within a single case. For example, it is useful to reflect on outcomes that cannot easily be quantified such as advocacy or capacity building efforts.

In selecting indicators, the organisation should thus start by considering which of the above aims of enquiry are aligned with its purpose and plausible linkages.

Level of summarisation

The second criteria relates of the level of summarisation across cases, i.e. whether we want to gain deep knowledge of an individual project or want to summarise data across multiple projects. Summarisation is sometimes wrongly equated with the differences between quantitative and qualitative research, where the former is seen as spanning across cases due to numerical aggregation and the latter is viewed as within-case due to an emphasis on narratives. However, it should be stressed that qualitative research also be conducted across cases and vice versa.

Instead, it is useful to draw a distinction between three levels of summarisation that span various the aims of enquiry: within-case, comparative and cross-case.

Within-case approaches refer to studies that seek to gain an in-depth understanding of individual cases, e.g. learning outcomes from a capacity building programme. As these are context-specific, it is not desirable to summarise data across various programmes or cases.

Comparative approaches seek to compare data across projects or cases. The aim here is not to aggregate numbers into an overall figure, but to sort cases according to a number of categories or domains-of-change that makes it possible to compare projects or cases.

Cross-case approaches typically aim to aggregate data into overall findings, which holds true for all projects under review. Sometimes cross-case approaches also seek to develop generalisable theories, e.g. that community participation results in less conflict, etc.

The organisation should thus proceed by determining the preferred level of summarisation that corresponds with its purposes and defined plausible linkages.

Selection process

To aid the selection process, pros and cons for each type of enquiry and each level of summarisation are listed on Table 1 on the previous page. This enables organisations to focus their discussions on those indicators that are most likely to support the purpose and plausible linkages behind the data collection.

The most relevant indicators are found in the corresponding squares on Chart 1. While the indicators included on the chart represent the most common indicators used for MEL, it does not represent an exhaustive list. Often it is useful to use a mixed approach where quantitative figures, for instance, are complimented by qualitative narratives to ensure balanced accounts.

Detailed accounts of how to operationalise each indicator have been presented elsewhere. The paper will therefore not attempt to explain each type and refers instead to the existing literature.

One recent paper is worth highlighting, however, as it has provided the main inspiration for the present paper and contains a useful overview of different types of indicators. It is written by Nigel Simister of INTRAC and is entitled "Summarising Portfolio Change: Results Frameworks at Organisational level" (read the paper here).

The indicators placed on the chart are as follows:

- **Statistical aggregation**: vertical aggregation across programmes or horizontal aggregation at global level (see "aggregated indicators" in Simister 2016).
- **Ranking and rating**: comparing values across cases and ranking them accordingly either directly or using aggregation (see Simister 2016).
- **Calibration**: re-calculating values based on scoring principles, which can also be used for aggregation (compare "translated indicators" in Simister 2016).
- **Core indicators**: comparative overview of values listed in table structure by case (see Simister 2016).
- **Indirect indicators**: summarisation of different proxies without numerical aggregation (compare "framing indicators" in Simister 2016).
- **Clusters**: indicators taken from individual projects and used at the global level as examples of overall results without aggregation (see Simister 2016).
- **Direct indicators**: quantitative and qualitative indicators related to observable changes or opinions.
- **Scales**: assignment of numerical scores based on qualitative principles to compare progress.
- **Outcome challenges**: defined outcomes in accordance with Outcome Mapping (see Earl, Carden and Smutylo 2001).
- **Most significant change**: summarising stories of change to generalise best practice across cases (see Davies and Dart 2005).
- **Displays**: summary of qualitative narratives using a table structure to organise these by domains-of-change (see for example Dahler-Larsen 2010).
- **Narratives**: qualitative narratives within-case and without comparative summarisation.

ONLINE PLATFORM FOR M&E DATA-MANAGEMENT

Think Capacity is developing an online platform for collecting, analysing and sharing data across organisational levels, partners and consortiums. The platform will make it easy to:

- Plan project implementation, define indicators and collect data online
- Aggregate data horizontally and vertically using organisational hierarchies
- Sharing and validating data across partners and consortiums

CSOs are currently invited to take part in a free pilot testing.

Think Capacity is founded by Kasper Jon Larsen, who works as an M&E-consultant and has written a PhD project on time-series analyses using data-based M&Es.

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SUMMARY SHEET – STRATEGIC SELECTION OF INDICATORS

Use the chart to place the purpose and plausible linkages behind your data collection – then discuss related indicators with your team.

Step 1: Define the purpose

What is our purpose with collecting data and how does it relate to our theory-of-change? Do we want to build accountability, support project management or facilitate learning?

Who is our target audience that will see the output from the data? What claims and key messages do we want to communicate?

What does the output look like? Are we aiming to write reports, make presentations or produce other deliveries?

Step 2: Define plausible linkages

What plausible linkages can we envision between our purpose with collecting data and the actual outcome or impact?

How do we limit the number of plausible linkages, so we focus resources on the most important claims and key messages?

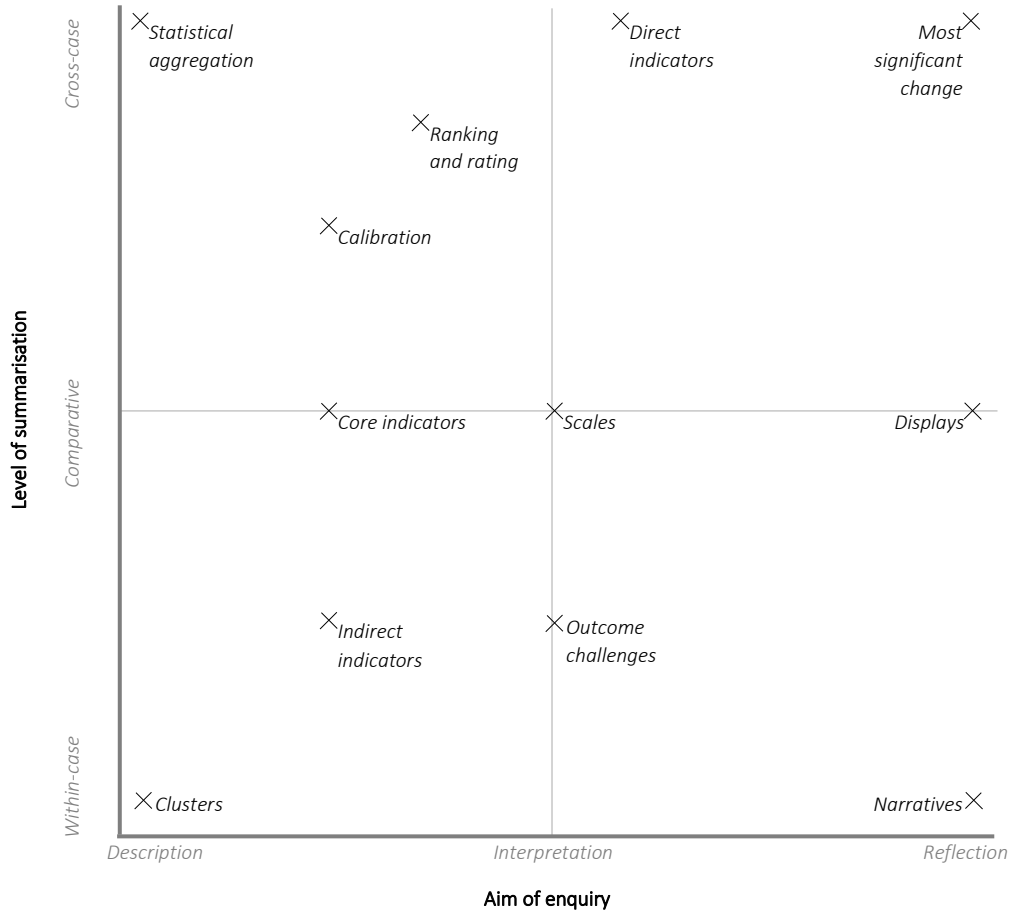
Are there any linkages that don't support the purpose directly and can could be deselected?

Step 3: Select indicators

Use the chart to place the aim of enquiry and the level of summarisation that best reflect the chosen purpose and plausible linkage.

The chart represents an approximate categorisation of indicators and seeks to facilitate discussion amongst team member. Keep in mind that indicator selection should always be done using context-specific knowledge. The analysis often benefits from utilising mixed indicators to balance quantitative and qualitative data.

Chart 1: Selecting indicators by aim of enquiry and level of summarisation



This worksheet has been developed by Kasper Jon Larsen, independent M&E-consultant and founder of Think Capacity. He is available for presentations and consultancies.

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