



Monitoring & Evaluation

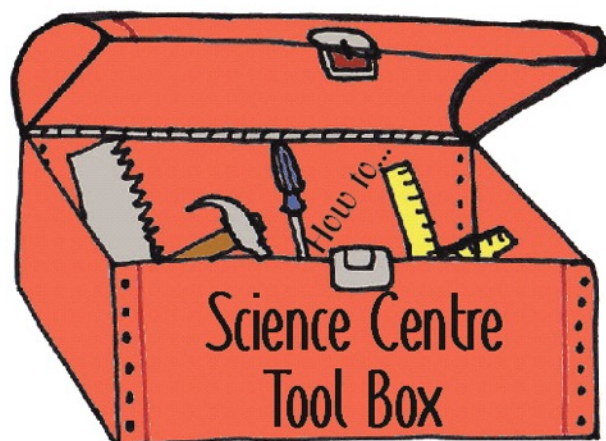
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This excerpt forms part of the

SAASTEC TOOL BOX



Sci-Bono's Monitoring and Evaluation Exercise

Ten lessons we learnt along the way...

By Michael Peter

BACKGROUND

By 2010 Sci-Bono Discovery Centre had grown significantly compared to our first year of operation in 2005. We had increased funding income and were running many more programmes. Not only did we at Sci-Bono need to assess what impact these programmes were having and what the return on investment was, but our funders too were asking these questions. It was thus the time to embark upon a monitoring and evaluation (M&E) exercise.

There was little to no information available on M&E for the kinds of programmes we were running and so we decided on utilising the services of a consultant. This specialist had difficulty coming to terms with all of our programmes and the unusual and innovative approaches used by science centres and that particular exercise did not last.

Lesson 1: Understanding why M&E?

Sci-Bono's first task was to get management staff to buy in to the M&E exercise and to understand why we needed to embark on this journey. The following reasons for conducting M&E were agreed upon:

- To establish **value**
- To maintain **quality** control
- Monitoring and evaluation helps improve **performance** and achieve the desired results
- To optimise the use of limited **resources**
- To provide feedback and reporting on the **impact** of programmes to the key stakeholders
- To enable evidence-based **decision** making (e.g. in programme design)

Lesson 2: Defining M&E

The simple definition for M&E that we arrived at was the following:

M&E systems **track** what is being done in relation to **plans** and whether the programme is making a **difference**.

We broke down the definition further focusing on the two key words:

Monitoring ...

- is the *routine* tracking of the key elements of programme/project performance (usually inputs and outputs)

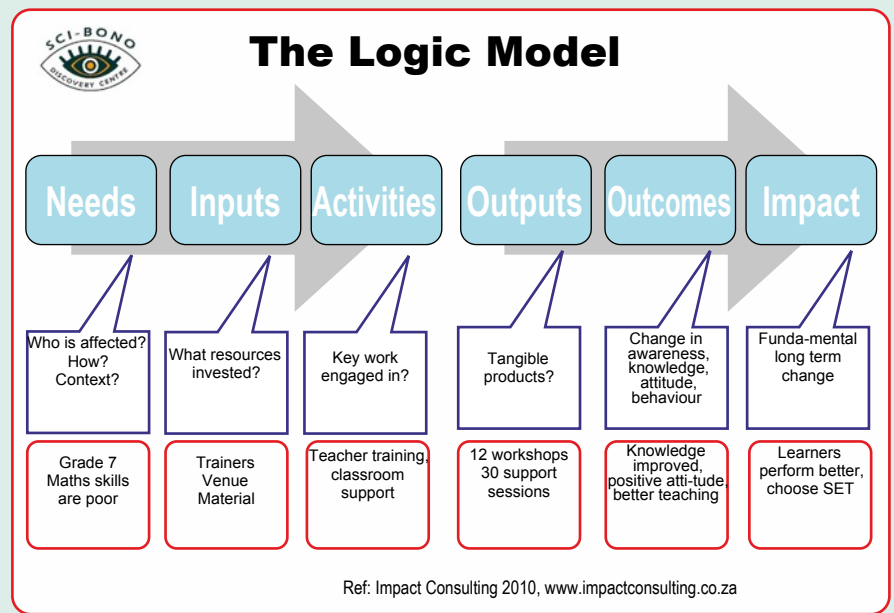
Lesson 3: Changing our approach...

We had come to realise that we had already engaged in some form of M&E in the past. That was a more traditional approach to M&E. This approach had focused on implementation monitoring, that is the tracking of inputs, activities and outputs. This is commonly seen as a way to assess compliance with work plans and budgets.

That approach was clearly not sufficient and we had to shift to a new approach that yielded data on what impact our projects were having. This **results-based M&E** approach involved the collection of information on how effectively a project was performing. It needed to show the extent to which the project under review was achieving its stated goals.

Lesson 4: Developing a Framework

Sci-Bono, together with the consulting agency, developed the following framework which guided our M&E process. This is a popular framework known as the 'Logic Model' and it enabled us to analyse our programmes and re-think the outcomes that we were aiming at. The following schematic representation summarises the model.



Lesson 5: Frameworks are not foolproof

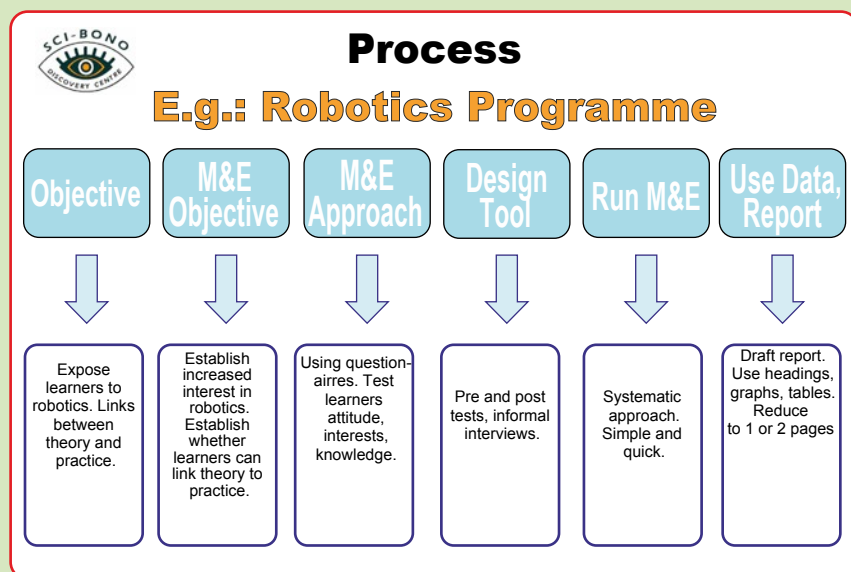
After completing the framework for all of our key programmes we proceeded with a plan to implement the M&E exercise in 2012. At this point we realised that the framework did not give us two key categories of information.

These two categories that needed to be added on were (a) the list of objectives for each programme and (b) the corresponding list of M&E objectives. The former stated what we wanted to achieve at the end of the programme and the latter stated exactly what we wanted to measure in order to see that the primary objectives were met. This would be critical information that would greatly assist by creating clarity of focus and by assisting staff to understand exactly what they needed to measure.

Lesson 6: Defining objectives... Not as easy as you think

Even after the objectives were agreed upon it was found that staff had conducted assessments, run questionnaires and evaluated programmes based on different objectives. This had not been deliberate but it showed how easy it had been to veer away from the original design of the programme. It probably was a case of not being able to break old habits. We also found that at varying levels of the organisation we had varying levels at which the objectives were interpreted. This made the M&E exercise somewhat unreliable as it is very important to measure success against the original, agreed upon indicators.

The M&E process of is very dependent on well defined objectives and this carries through strongly up unto the issuing of the final M&E report. That process is captured in the flowchart to the right.



Monitoring & Evaluation
in 10 easy steps

Lesson 7: Deciding what to measure...

As an example we took our Science Centre programmes and tried to establish what it was that we were trying to do with each of them and therefore what we should be measuring. The following matrix is used to show what we wanted to measure for each of our key target markets.

LEARNERS		PUBLIC
PRIMARY MEASURE (Must measure)	Objectives: Engagement Awareness Learning/Knowledge	Objectives: Engagement Awareness
SECONDARY MEASURE (Can we measure?)	Objectives: Subject/career choice. Inquiry Attitude shift	Objectives: Attitudinal shift Dialogue

Once this had been established we needed to match each of these objectives with indicators that would tell us the extent to which we were reaching the objectives. This summary is shown in the table to the right.

Objectives	Key measurement indicators
<ul style="list-style-type: none"> Engagement Awareness Learning / Knowledge Dialogue Inquiry Attitude shift 	<ul style="list-style-type: none"> Measure time at exhibit, reading, questions, discussion Knowledge before and after Understanding of content Ability to discuss Exploration of subject matter, questioning Change in values, mind shift

Lesson 8: Short term tracking is a start

Whilst all of our work is geared towards outcomes that we need to see realised in the medium to long terms, it is obviously not possible to generate any of that data immediately. Moreover, making claims about our programmes' impact way down the line may be presumptuous. That is because the recipient is never isolated from other activities that may have an impact on her as well.

For these reasons we took a view to analysing the short term impact of our programmes, for now. Short term M&E shows the immediate impact of a programme. It is usually conducted post the treatment and assesses the change on the recipient at that point.

Lesson 9: It's easy to wander when writing M&E Reports

M&E Reports are very different to traditional reports on projects. For those who needed to write the M&E reports based on the data collected a clear guideline was necessary. The following format for reporting was agreed upon:

Format for reporting:

1. Description of Programme
2. Programme Aims
3. M&E Aims
4. M&E Sample
5. Findings
6. Actions

This format was useful in that it kept the focus strongly on the M&E aims. So for example, the writer had to "Establish the extent to which learners had been able to transfer the theory into practice by building and operating a robot." Also useful was the list of actions at the end, that is, the writer had to ensure that challenges were mitigated and action plans put in place to counter any issues that arose.

Lesson 10: Ten more things worth noting

The following points are given as pointers – these are learnings that do not necessarily refer to the process we engaged in but that are lessons that we learned and we thought are well worth sharing.

1. Change is not always attributable to the intervention.
2. Clarity of focus – always go back to the OBJECTIVES of the programme and of the M&E.
3. The literacy levels of learners may make the data unreliable.
4. Translating raw data to useful reports with easy to use tables and graphs needs pre-planning with templates.
5. Tools must be kept simple.
6. Questions are key – e.g. asking a learner whether they learnt something is not the same as testing the knowledge.
7. The pre and post assessments are not tests which learners need to pass.
8. The data reported on must be interpreted so we understand what it means.
9. The data can change the way we run some programmes.
10. A focal person is important to driving the process. And a final word to science centre managers... **GO AHEAD... EVALUATE!**