Evaluation Plan Template – worked example

Evaluation Essentials for School Leadership

Centre for Education Statistics and Evaluation
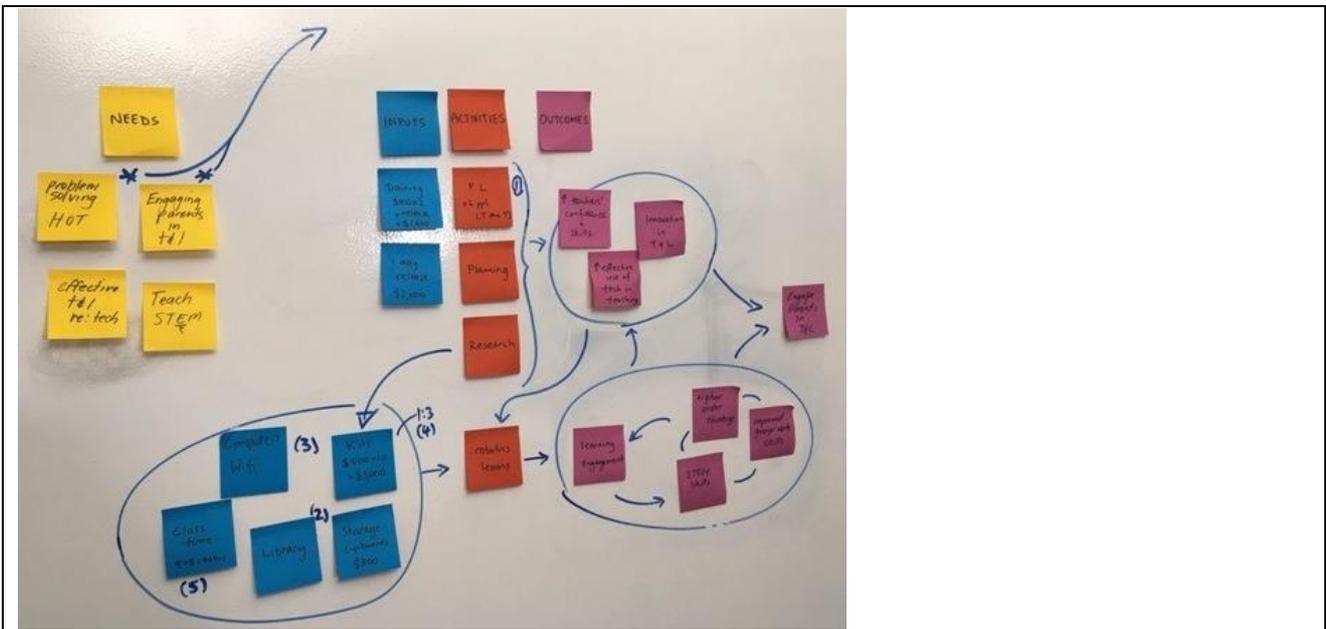
Evaluation plan for: Stage 2 Robotics Project

Part A: What we are evaluating

Description

Stage 2 STEM lessons with robotics.

Logic model

Intended outcomes

The intended outcomes of the Stage 2 robotics project were to:
- improve students' engagement in science and maths, higher-order thinking, group work skills, syllabus outcomes covered in the STEM lessons (particularly those from the science and maths syllabuses)
- increase teacher's confidence and skills in the effective use of technology in teaching across all Key Learning Areas, and innovation in teaching and learning
- strengthen parental engagement in teaching and learning in the school.

Part B: Why we are evaluating it

Purpose

The purposes of this evaluation is to:
- enable ongoing improvements and adjustments
- identify factors (and resourcing implications) that need to be taken into account if the project is continued, especially r.e. the ratio of students per kit
- stand back from the project and assess it on its merits and against its claims
- provide accountability, to the P&C (which part-fund the purchase of the robotics kits).

Anticipated use

School leadership will use the findings to see whether:
- the robotics project can be expanded to other stages
- further professional learning is needed to improve teacher practice with a focus on technology
- the cost was justified for the school and P&C.

Part C: Evaluation questions

Key questions

Process questions: These questions should focus on key activities in the project to understand 'what we did' and 'how well we did it'

Was one robotics kit between three students enough to ensure well-run lessons?

Outcome questions: These questions should focus on key outcomes to understand 'what difference we made, for whom, and under what circumstances'

To what extent did the robotics project increase student outcomes in the following areas:
- student engagement
- higher-order thinking
- syllabus outcomes covered in the STEM lessons
- group work skills?

Economic questions: These questions should focus on the costs and benefits of the project to understand cost effectiveness and efficiency. Remember, to answer this question you need to clearly know all costs related to the project and its outcomes, both positive and negative.

Was the robotics project worthwhile, considering the resources expended, time committed, and additional constraints as a result of the project?

Part D: Approach (evaluation question 1)

Question (Type: Process)

Was one robotics kit between three students enough to ensure well-run lessons?

Data

Data type	Source/area
Feedback	• Feedback from students (focus groups) • Feedback from teachers (interviews)
Observation	• Observation of teaching • Observation of learning
Document analysis	• Lesson plans

Data interpretation notes

We need to be clear by what we mean by 'well-run lessons' to make sure that the data used is valid and that we make informed decisions. In this context, 'well-run' refers to classes that:
- are not overly stressful for teachers or students
- do not distract from learning, whether in the robotics class or for other Key Learning Areas
- are organised to take learning needs and context into consideration.

It is important to come to a shared understanding on what 'well-run' means and what this might look like compared to a 'poorly run' lesson. From our discussion as a team, we have decided to let participants (teachers and students) in the robotics project set the standards for the different levels of the what was stressful or not, rather than imposing an external standard or scale for stress.

Part D: Approach (evaluation question 2)

Question (Type: Outcome)

To what extent did the robotics project increase the following student outcomes:
- student engagement
- higher-order thinking
- syllabus outcomes covered in the STEM lessons
- group work skills?

Data

Data type	Source/area
Feedback	• Feedback from students (focus groups)
Observation	• Observation of learning
Assessment	• Internal, teacher-devised assessments (specify: robotics project and other STEM subject assessments)

Data interpretation notes

For each of the types of student outcomes we listed in our evaluation question above, we mean:
- Student engagement: time on task, enjoyment in class, attentiveness
- Higher-order thinking skills: application of knowledge to new diverse contexts, devising and testing a hypothesis, working out how to solve problems
- Syllabus outcomes covered in the STEM lessons: syllabus outcomes for science and maths key learning areas
- Group work skills: ability to plan together, ability to negotiate roles, ability to manage and avoid conflict, ability to carry out task as a team.

Comparisons between outcomes in the robotics lessons to those in other science and maths classes are important to make. Ideally, we would like to see these student outcomes exceeding levels in other units of learning in science and maths. Otherwise it might be better to just run more normal science and maths classes.

In the analysis, we also want to look for groups of students who benefitted more/less than others from the robotics lessons. This will help to see which students are falling behind and need extra support, and which students are grasping the concepts well and need to be extended.

Part D: Approach (evaluation question 3)

Question (Type: Economic**)**

Was the robotics project worthwhile, considering the resources expended, time committed, and additional constraints as a result of the project?

Data

Data type	Source/area
Administrative data	• Finance
Other	• Data from Process Q1 above • Data from Outcome Q1 above

Data interpretation notes

To see whether the robotics project was 'worthwhile', we need to consider its benefits and costs in a holistic manner. The benefits can be measured by answering Outcome Q1 above. The costs can be measured by:
- the monetary and resource costs recorded in our finance data
- the stress and distraction measured by answering Process Q1 above.

Assessing whether the benefits outweigh the cost will require stakeholder input from across the school community. In the evaluation, the best we can do is list the benefits and costs and present that to the school executive, P & C and other stakeholders and see whether the robotics project has been 'worthwhile' from their perspective.

Part E: Implementation plan

Remember that the worked example provided is simply to illustrate the thinking needed for using this template, not as a guide for what every evaluation should be. This process could be applied to short intensive evaluations done on small projects, year-long reviews of aspects of your school plan.

If the amount of work in the worked example seems too much or too little, you can reduce/increase the:
- *scope of your evaluation questions*
- *range of data sources/areas.*

If the number of staff in the worked example seems too many or too few, you can:
- *Adjust the responsibilities according to capacity of your school's staff.*

If the timeline seems too long or short, you can:
- *Adjust your timeline according to the amount of time and staff you have in your school.*

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Feedback from students (focus groups)	Questions: • Process Q1 • Outcome Q1 Topics: • Stress • Distraction • Time on task • Enjoyment • Attentiveness	Oversee: Stage 2 coordinator Conduct: Stage 2 coordinator	Weeks 1-2: Design and review focus group questions Weeks 3-4: Arrange time and who to invite for focus groups Weeks 5-6: Run focus groups Weeks 7-8: Analyse focus group responses	• Privacy • Responses collected might be overly critical or targeted towards others • Disruptive for interviewee	• Teacher relief to conduct, analyse and report • Recording device • Student time

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Feedback from teachers (interviews)	Questions: • Process Q1 Topics: • Stress • Distraction	Oversee: Stage 2 coordinator Conduct: Stage 3 coordinator	Weeks 1-2: Design and review interview questions Weeks 3-4: Interview teachers Weeks 5-6: Analyse interview responses	• Privacy • Responses collected might be overly critical or targeted towards others • Disruptive for interviewee	• Teacher relief to conduct, analyse and report • Recording device

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Observation of teaching	Questions: • Process Q1 Topics: • Stress • Distraction	Oversee: Stage 2 coordinator Conduct: Stage 3 coordinator	Weeks 3-4: Design and review rubric for observation Weeks 5-6: Observe lessons Weeks 7-8: Analyse observations	• Deemed judgmental of a teacher • Disruptive for lesson	• Teacher relief to conduct, analyse and report

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Observation of learning	Questions: • Process Q1 • Outcome Q1 Topics: • Stress • Distraction • Time on task • Enjoyment • Attentiveness • Application of knowledge to new diverse contexts • Devising and testing a hypothesis • Working out how to solve problems • Plan together • Negotiate roles • Manage and avoid conflict • Carry out task as a team	Oversee: Stage 2 coordinator Conduct: Stage 3 coordinator	Week 1-2: Design and review rubric for observation Weeks 3-4: Observe lessons Week 5-6: Analyse observations	• Deemed judgmental of teachers or students • Disruptive for lesson	• Teacher relief to conduct, analyse and report

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Lesson plans	Questions: • Process Q1 Topics: • Consideration of learning needs and context	Oversee: Stage 2 coordinator Conduct: Stage 2 coordinator	Weeks 3-4: Determine learning needs and context to consider Weeks 5-6: Design and review rubric for analysing lesson plans Weeks 7-8: Analyse lesson plans	• Deemed judgmental of a teacher	• Teacher relief to conduct, analyse and report

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Internal, teacher-devised assessments (specify: robotics project and other STEM subject assessments)	Questions: Outcome Q1 Topics: • syllabus outcomes for STEM key learning areas	Oversee: Deputy principal (former Stage 2 coordinator) Conduct: Teachers from Stage 2	Weeks 1-2: Determine which assessments to analyse Weeks 3-4: Analyse student achievement and growth measured in the assessments	• Privacy • Deemed judgmental of a teacher	• Teacher relief to conduct, analyse and report

Data Source/area	Description	Responsibilities	Timeline	Key risks	Resource requirements
Other administrative data (specify: finance)	Questions: Economic Q1 Topics: • monetary and resource costs	Oversee: Principal Conduct: School Administration Manager (SAM)	Week 1: Analyse finance data for costs related to robotics	• Privacy • Disruptive to other admin duties	• Time for SAM