

FOR WHOEVER IS RUNNING A CLASS

Facilitator Handbook

How to run a find-and-fix term without teaching it. Your job is to keep learners moving and to make sure a baseline exists by week four - not to answer their questions. Written for a full timetable and no free periods.

What a facilitator does

A facilitator protects the conditions for the work and refuses to do the work. You hold the dates, the consent slips and the nerve; the question, the baseline, the one change and the honest after-figure stay with the learner.

Do

- Put the three checkpoints and the two defence lessons in your diary in week one, before the term fills up.
- Read the marking aloud on day one: 6 for the artifact, 6 for the process and its failures, 8 for the defence, and a well-measured failure outscoring an unmeasured success.
- Say the returning rule out loud every week until it is boring: an effect claimed without a baseline measured before the change comes back unmarked.
- Keep one sheet with names down the side and the nine deliverables across the top, so every learner reads 0/9 in week one and you can see at a glance who has no baseline in week four.
- Open every conversation with the same two questions - what did you measure, and on what date did you measure it.
- Send the consent slip home before any learner contacts an adult outside school, and send the learner back to the numbered step when they ask you something step 7 already answers.

Do not

- Do not name the expert for the learner. The contact stops being theirs, and one unseen defence question exposes a borrowed name.
- Do not answer the research question, even partly. The 8 defence marks come from thinking the learner did alone, and you cannot sit in the chair for them.
- Do not tidy the failure log. A record in which nothing goes wrong scores zero on process, and you will have removed the marks yourself.
- Do not let anybody start Act 2 before the before-figure is written down and dated. Once the change is made, the baseline cannot be recovered, and everything measured afterwards is unmarkable.
- Do not let a learner change two things because both look promising. Two changes make one result nobody can attribute, and the first defence question takes it apart.
- Do not accept one document from a pair. Free-riding hides inside a shared file, and neither learner can defend a number they did not take.

When a learner asks you for the answer, say this

"I honestly do not know what will happen - what number are you writing down before you change anything?"

Say this out loud before Act 2 begins

From this week the marks change shape, so listen to this once. A change you measured properly that made nothing better scores higher here than a change you say worked but never measured before you made it, because the first one is a result and the second one is a story. Nobody in this room loses a mark for a fix that failed, and everybody loses marks for not being able to prove what happened either way.

And when a fix has not worked and the learner is upset:

1. Right, so it did not work - that is a real result, and it is worth more marks than a success you cannot prove.
2. Nothing gets deleted and nothing gets rounded; we write the after-number exactly as you measured it, with the date beside it.
3. Now give me the two most likely reasons it did not move, and we will put both of them in the write-up before you go.

The term, week by week

Six weeks, two acts, ten steps, nine deliverables, about 30 hours of learner work and one defence at the end. Steps 1 to 5 find and cost a real problem. Steps 6 to 10 change one thing and measure the same quantity again.

WEEK	STEPS	IN CLASS	OUT OF CLASS	YOUR JOB
Week 1	Steps 1-2 - Act 1, Find	One 45-minute lesson. Learners pick a project, read the ten steps, declare a capability level, and write down the one quantity they will count and its unit.	About four hours. Reads the project, names the quantity, and takes one practice reading to prove the method works before it counts.	25 minutes with the whole class, plus 5 minutes to send the consent slips home.
Week 2	Steps 3-4 - Act 1, Find	30 minutes narrowing the question until the unit is one word, and naming the people the problem actually belongs to.	About five hours. Starts the real baseline readings and sends the first message to an expert.	Checkpoint 1. Five minutes per learner, six a lesson while the rest measure. Question card lands this week.
Week 3	Step 5 - Act 1, Find	40 minutes. Baseline readings compared in pairs, and interview questions rehearsed out loud.	About five hours finishing the baseline series, plus the expert interview and its written reply.	15 minutes on the deliverables sheet, and a message to every learner with no readings yet. Expert interview pack lands this week.
Week 4	Steps 6-7 - Act 1 closes, Act 2 opens	40 minutes. The costed problem statement is finished on one page, one change is chosen, and the protocol for repeating the measurement identically is written before anything moves.	About five hours. Locks the baseline, starts the one change, and keeps the record in the same columns as before.	Checkpoint 2, the checkpoint that saves the project. Five minutes per learner, six a lesson, plus two minutes to the whole class on why a measured failure scores higher. Evidence log lands this week.
Week 5	Steps 8-9 - Act 2, Fix	40 minutes of peer review in threes, using the nine deliverables as the checklist.	About five hours. After-measurements taken the same way as the before, then the build, the explainer and the identity card.	10 minutes pairing reviewers, and 10 minutes writing two defence questions per table that nobody has seen. Failure log, build, explainer and identity card land this week.
Week 6	Step 10 - Act 2, Fix	Two lessons of defences at 10 to 12 minutes each, plus 20 minutes filling the assessment template.	About four hours. Closes the relations ledger, records the defence video, and shares the finding with the people it came from.	10 minutes per learner in the defence, then 10 minutes checking every ledger holds ten dated replies. Relations ledger and defence video land this week.

Your total time

Estimate 30 to 40 minutes of one-to-one facilitator time per learner across the term - three five-minute checkpoints, one ten-minute defence and a few corridor conversations - on top of about 25 minutes of whole-class time a week. Protect Checkpoint 2 above the other two: five minutes in week 4 is the difference between a project that can be marked and one that cannot.

The three checkpoints

Five minutes per learner, three times a term. Checkpoint 2 is the one that saves the project - a learner who reaches week four with no baseline cannot be marked at all.

Checkpoint 1 – A question with a unit in it

END OF WEEK 2

By now: There is a real question, one named person who lives with the problem, and a quantity the learner can name in a single word with a unit attached.

Ask exactly this

1. Say your question back to me in one sentence, without reading it.
2. What exactly are you going to count, and in what - litres, rupees, minutes, teaspoons, times a week?
3. Say the unit again on its own. If it takes a sentence, the question is still too big.
4. Whose problem is this? Give me the name of one person who lives with it every week.
5. Which day this week do you take the first reading, and what do you take it with?
6. Which level did you declare, and what does that level ask of you that the one below does not?

ON TRACK

The question comes out in one breath with a place, a person and a unit inside it. The unit is one word. The first reading has a date this week and a named instrument.

WARNING

The question is still a topic, or the quantity is described but has no unit, or a person is named and nothing has been sent to them. **Do:** Three questions in the corridor: what unit, whose problem, which day. Write the unit at the top of their page in one word while they watch, then stand there while they send one message before the bell.

STOPPED

No unit, no person, and the learner is waiting to be told what to measure. **Do:** Give them the project's own question and its unit unchanged, and start at step 1 today. If nothing has moved by the end of week 3, let them restart in another lab on a shortened plan - one baseline, one change, same defence date. A restart in week 3 still finishes; a rescue in week 5 does not.

Checkpoint 2 – The baseline is on paper

END OF WEEK 4

By now: A before-figure exists in writing, with its date, its instrument and its method beside it, taken while the situation was still normal. Nothing in Act 2 can be marked without it.

Ask exactly this

1. Read me your before-number out loud, with its unit.
2. What date was it taken, and what did you take it with?
3. How many separate readings is that one number made of? Say them.
4. Has anything changed since you took it - have you started the fix already?
5. If I asked you to take it again tomorrow, could you do it exactly the same way? Talk me through it.
6. Show me the page. I want to see the date written on it, not remembered.

ON TRACK

The learner says a number and a unit without hunting for it, gives a date earlier than today, names the instrument, and can talk through repeating the measurement step by step. The readings exist on a page you can see.

WARNING

There are readings but no single before-figure, or a figure with no date, or the change was already started before the last reading was taken. **Do:** Ten minutes at the desk: put every reading in one column, write the mean underneath, and put the date and the instrument at the top of the page. Any reading that was missed is written as missing, never filled in from memory. Photograph the page before they leave.

STOPPED

No number from before. There is enthusiasm about the fix and nothing recorded from the world as it was. **Do:** Stop Act 2 today, out loud, in front of them. They take the baseline this week even if it is three readings instead of seven, and the shortened period goes on the page. A thin baseline can be marked. An absent one returns the whole project unmarked, so this is the one deadline you do not let slide.

Checkpoint 3 - One change, measured the same way

END OF WEEK 6

By now: Exactly one thing was changed, the after-measurement repeats the before-measurement precisely, and the learner can say what would have happened anyway.

Ask exactly this

1. *What is the one thing you changed? Just the one.*
2. *What else changed in those weeks, whether you wanted it to or not?*
3. *Did you measure the after the same way as the before? Tell me the instrument and the two times of day.*
4. *Would this have happened anyway without your change, and how do you know?*
5. *Which of your two numbers would you not bet on, and why?*
6. *Who have you shown this to, and what did they argue with?*

ON TRACK

One change, named in a few words. The after-method matches the before-method item for item. The learner offers two confounders before you ask, and names their weakest figure ahead of you.

WARNING

Two or three changes ran together, or the after was measured a slightly different way, or the answer to what would have happened anyway is that nothing would. **Do:** Ten minutes: list every change on paper, ring the one they can defend, and write the rest into the confounder list rather than pretending they were not there. If the after was measured differently, re-take it the original way this week and label the first attempt as estimated.

STOPPED

No after-figure, or an after-figure the learner cannot connect to any before-figure, or a percentage standing where two numbers should be. **Do:** Run the defence on the date anyway. It carries 8 of the 20 marks, and an honest thin defence beats a missed one. Afterwards, start the second project clean in a different lab rather than repairing this one for weeks.

Ten things that go wrong, and what to do

WHAT YOU NOTICE	WHAT IS REALLY HAPPENING	WHAT YOU DO
The learner talks fluently about the change and there is no number from before it.	Act 2 was more interesting than Act 1, so nothing was recorded while the situation was still normal.	Say plainly that a claimed effect with no before-figure comes back unmarked. If the change has run only a few days, restore the old condition for one week and take the baseline now. If it has run for weeks, baseline a comparable week and label it on the chart as taken afterwards.
They swapped the bulb, moved the fridge, changed the timing and told the house to shut the doors, all in the same week.	Every idea sounded good and none was ranked, so no part of the result can be attributed to any one of them.	Ten minutes with paper: list the changes, ring the one they can defend, undo the rest for the after-period. If the weeks are already spent, keep the data and write the sentence in the explainer - this result cannot be attributed to one change - because saying it earns more than hiding it.
The number fell by a third and every explanation starts with I think it is because.	The mechanism was never written down, so a real improvement and a lucky coincidence look identical from here.	Ask what physically had to happen for that number to fall, and hold out for one sentence with a verb in it. Then ask what else changed in those weeks and put both answers in the confounder list, side by side, before they write anything up.
The after-weeks go quiet, or the learner suddenly asks to change project in week 5.	The fix did not work, and they believe a failed fix means a failed project, so hiding it feels safer than showing it.	Use the failure-grade script out loud, then sit beside them while they write the after-number and its date. Point at the line that says a well-measured failure outscores an unmeasured success, and mark the honesty in front of them so the class sees it happen.
The baseline came off a kitchen scale and the after-figure came off a packet label, or the reading times have quietly moved.	The learner was measuring the outcome instead of repeating the method, so the two numbers are not comparable.	Two questions: what instrument, what time of day. Anything that differs gets re-measured this week the original way. If it cannot be, the row is marked estimated on the chart itself, not in a footnote nobody reads.
The readings are in neat adult handwriting and the learner cannot say where the meter or the scale is kept.	A parent stepped in to protect the mark and removed the only thing that carries it.	Ask for one reading taken in front of you, now, and let the silence sit. Send one line home afterwards: the defence is 8 of the 20 marks, only the learner can sit it, and readings taken by a helper cost exactly the marks they were meant to protect.
The project is about the city's air, or the country's water, and week 4 arrives with nothing that can be changed.	The problem is real but nothing inside the learner's reach moves it, so Act 2 has nowhere to start.	Shrink it to one room, one street or one household before the conversation ends. Ask what they could change tomorrow with what is already in the house, then rewrite the question around that and keep the original as the stretch line.
The shopkeeper stops replying, or the household says stop weighing our food.	Consent was taken once and assumed to last, or the measuring became a nuisance nobody agreed to keep living with.	Thank them and stop the same day, with no negotiation. Move the identical method to a household or a shop that agrees, keep the Act 1 work as evidence, and write the withdrawal into the failure log with its date - it is a process mark, not a loss.
The explainer says usage dropped 40 per cent and no litres, rupees or minutes appear anywhere on the page.	A percentage sounds stronger, and it hides a baseline of three readings that the learner would rather not show.	Ask for both raw numbers out loud before you look at the page. Put the before, the after and the difference on the chart in their own unit, and allow the percentage only in brackets after them.
The costed problem statement is finished, it looks good, and nothing has moved for two weeks.	Choosing the one change feels like a decision they could get wrong, so they keep polishing Act 1 instead.	Ten-minute slot: write three possible changes, cross out the two that cost money, start the survivor tonight. Any change measured the same way can be marked. The perfect change chosen in week 6 cannot.

Confirming a declared level

Learners declare a capability level before the first measurement, and it goes on the sheet in writing: Starter, Practitioner, Researcher or Contributor. The level says what the work must show, so a Starter is never marked down for what their level does not ask for, and a Contributor who hands in Starter evidence scores badly.

1. Ask which level they declared and write it at the top of their sheet in front of them.
2. Read that level's line aloud, then ask what it demands of them that the level below does not.
3. Ask to see the one piece of evidence the level requires - the written protocol, the cited page, the published study - and check whether it exists yet or is only intended.
4. If it does not exist, drop them one level today and say why plainly: the mark is set against the level declared, not against the room, so an honest level beats an ambitious one.

LEVEL	WHAT IT SOUNDS LIKE IN A TWO-MINUTE CONVERSATION
Starter	Talks you through the written method step by step, says the unit without hunting for it, and describes the one stranger they spoke to and what that person actually said.
Practitioner	Explains why they chose this meal, this appliance or this street rather than another, points to the page a borrowed figure came from, and hands you a chart without narrating it.
Researcher	Describes the protocol they wrote before measuring, says why three after-weeks and not one, and names the size of the error their instrument and their divisor introduce.
Contributor	Names a published study and where their figure sits against it, describes the specialist who disagreed and what changed after that, and tells you where their raw readings are posted.

The nine deliverables, and what you check

Nine deliverables, the same in every lab, and progress reads out of nine all term - 0/9 in week one, 9/9 at submission.

#	DELIVERABLE	DUE	WHAT YOU CHECK WHEN IT ARRIVES
1	Question card	Week 2	One quantity, one unit, one place, written before any measuring. If the unit takes a sentence to say, send it back.
2	Expert interview pack	Week 3	Five questions sent before the reply came back, and one sentence from the expert that changed the method or the number.
3	Evidence log	Week 4	A dated before-figure taken with a named instrument, and every reading listed rather than the tidy average standing on its own.
4	Failure log	Week 5	Dated entries saying what each slip did to the comparison. A log where nothing went wrong is a log written backwards.
5	The build	Week 5	Before and after on one axis in the same unit, with each after-week shown separately instead of averaged into one bar.
6	One-page explainer	Week 5	The before number, the after number, the one change and one honest limit, on a page a neighbour reads in ninety seconds.
7	Identity card	Week 5	The sentence meant to be repeated carries the number itself. If it carries an adjective instead, hand it straight back.
8	Relations ledger	Week 6	Ten names with dates and what each person replied, and the three peer comments dated before the artifact was finished.
9	Defence video	Week 6	Under three minutes covering the baseline method, the one change, the result, and whether it would have happened anyway.

Running the defence

The defence carries 8 of the 20 marks, more than the artifact and the process put together. It is the one part nobody can do for the learner, because the questions are unseen and every answer has to point at a dated number.

Setting it up

- Who attends: the learner, you, and one other adult or a senior learner as second listener. No audience of friends.
- How long: 10 to 12 minutes each. Two lessons covers 30 learners if a second adult runs a parallel table.
- Recording: phone audio is enough, taken with written permission, kept in the class file so a disputed mark can be checked.
- Where the questions come from: the four printed in the project, the standing attribution question every time, and two you write yourself that the learner has not seen.
- What the learner may bring: the artifact, the evidence log and one page of notes. No script, no phone, no slides read aloud.

Asking a good unseen question

- Ask the standing question in every defence, without exception: would this have happened anyway without your change, and how do you know?
- Ask about a number on the page, not about the topic. Example: where did the 14 come from.
- Ask when, not what. Example: what date is that before-figure, and what took it.
- Ask them to defend the weaker of two numbers. Example: which of these would you not bet on.
- Ask what somebody they interviewed would argue with. Example: if the shopkeeper read this, what would he say back.
- Ask one question with no right answer. Example: who does not benefit if your change spreads.

When an answer is thin, probe with these

1. *What else changed in those weeks, apart from the thing you changed?*
2. *If you had done nothing at all, what would the after-number be, and how do you know?*
3. *Was the month, the weather, the price and the household the same in both periods?*
4. *How do you know that? Show me where it is in your work.*
5. *What would have to be true for you to be wrong?*
6. *What did you leave out, and why did you leave it out?*

The mistake most facilitators make

The commonest mistake is helping - filling the silence, finishing the sentence, or nodding along when a saving sounds impressive. Count five seconds in your head, write your note without looking up, and treat a large improvement with exactly the same suspicion as a small one.

Five learners who need something different

Five or six learners in a class of 30 will need something different, and each takes minutes rather than a plan.

THE LEARNER	WHAT YOU SET THEM
The learner who finishes early	Add a fourth after-week or a second household measured the same way, rather than a longer write-up. Use them as second listener at three defences in the meantime.
The learner who falls badly behind	Shrink the quantity, not the requirements. Keep the baseline, the one change and the ten relationships, drop everything else, and agree the new dates in writing that day.
The learner who declared a level too high	Drop them one level at Checkpoint 1 and say why in one sentence. A secure Practitioner mark beats a thin Researcher one, and the level can be raised in the second project.
The learner who will not talk to strangers	Start with written questions by message, and send them out in a pair where the friend asks and they write down the answers. Move them to speaking by the third interview.
The learner with no internet at home	Put them on the No-Tech route: paper, a pen and conversations measure the same quantity and reach the same finding. Book 20 minutes of school computer time a week for the submission only.
The learner with no adult support at home	You sign as the known adult for fieldwork and keep the consent slip yourself. Pair them with a classmate for anything outside school and add one two-minute check each week.

Safeguarding – not optional

Learners on this programme measure real households, contact adults outside school and visit real places. That is what the ten relationships and the baseline require, and it is the part that needs firm rules.

- Get written consent from a parent or guardian before any learner under 18 contacts an adult outside school.
- Anybody whose household, spending or behaviour is being measured agrees first, in words, and can stop it at any point without being argued with.
- Nobody opens, unscrews, reaches into or climbs to reach anything to take a reading. Meters, boards, machines and bins are read from a normal standing distance or not at all.
- Submissions carry names only. No phone numbers, no addresses and no email addresses of the people interviewed.
- Never record a complaint about a named person. Write the problem, not the accusation.
- No learner goes to fieldwork alone. Two learners at minimum, or a known adult present, and no learner enters anybody's home - measurements happen at a counter, a gate, a reception, a school or on a call.
- An adult at school and an adult at home know where a learner is measuring and when they will be back.
- No photographs of other people's children without permission from their parent or guardian, and no photograph that carries a house number, a bill or a face nobody agreed to.
- If a learner discloses harm, stop the project conversation, promise no secrecy, write down what was said in their own words the same day, and hand it to your safeguarding lead.

[SCHOOL SAFEGUARDING LEAD - CONFIRM] which local child protection policy, consent form and offsite risk assessment this class must use, because EAD does not supply them.

Your first week with a new class

Starting 30 learners from nothing takes one lesson and eight short jobs around it.

1. 1. Open the twelve labs and give ten minutes to choose one. Nobody chooses because a friend chose.
2. 2. Show the two acts on one page: steps 1 to 5 find and cost a real problem, steps 6 to 10 change one thing and measure the same quantity again.
3. 3. Read the marks aloud - 6 artifact, 6 process and failures, 8 defence - and say plainly that a well-measured failure outscores an unmeasured success.
4. 4. Say the returning rule once, slowly: an effect claimed without a baseline measured before the change comes back unmarked.
5. 5. Have every learner declare a capability level - Starter, Practitioner, Researcher or Contributor - and write it on their sheet before anything is measured.
6. 6. Set the route per learner. High-Tech uses free browser tools; No-Tech uses paper, a pen and conversations. Both measure the same quantity, so the results compare.
7. 7. Send the consent slip home the same day, with the safeguarding rules printed on the back.
8. 8. Build one sheet: names down the side, the nine deliverables across the top, and the ten relationship boxes beside them. Everybody starts the term reading 0/9.
9. 9. Put the three checkpoints and the two defence lessons in your diary now, and tell learners those dates before they leave the room.

EAD Labs - Early Age Development by technogroup.ai - free to copy and use in any school - earlyagedevelopment.com/EAD_Labs.html