

DESIGNING LEARNING ASSESSMENTS



HANDBOOK 4

Supporting teachers with assessment



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Introduction

Assessment in Schools2030

Schools2030 draws on the methodological tools of participatory action research, community-based operations and implementation science to guide teachers and school leaders to seek practical solutions to local educational concerns through a plan-do-study-act cycle embedded in a human-centred design approach. **Administering and analysing learning assessments is the starting point on this journey for teachers and school leaders.**

Schools2030 is built on a three-stage model for participatory change. During the **assess phase** teachers implement assessment tools to measure holistic learning. Their interpretation of the results of these assessments feeds into an **innovate** phase. During this phase, teachers use the principles of human-centred design to design, track and iterate micro-innovations in their classrooms, funded by Schools2030. At the end of each year, what teachers have learned and demonstrated is brought together during the **showcase** phase.

While assessments are at the forefront during the **assess** phase, they are crucial for each of the phases. During the **innovate** phase, teachers will be supported to generate, adapt and use their own formative assessment approaches to support the tracking and iterating of their solutions. During the showcase phase, the data from the yearly “endline” assessments will be crucial for demonstrating the impact of their solutions. This integration of assessment across the yearly assess, innovate, showcase cycle is shown in Figure 1.

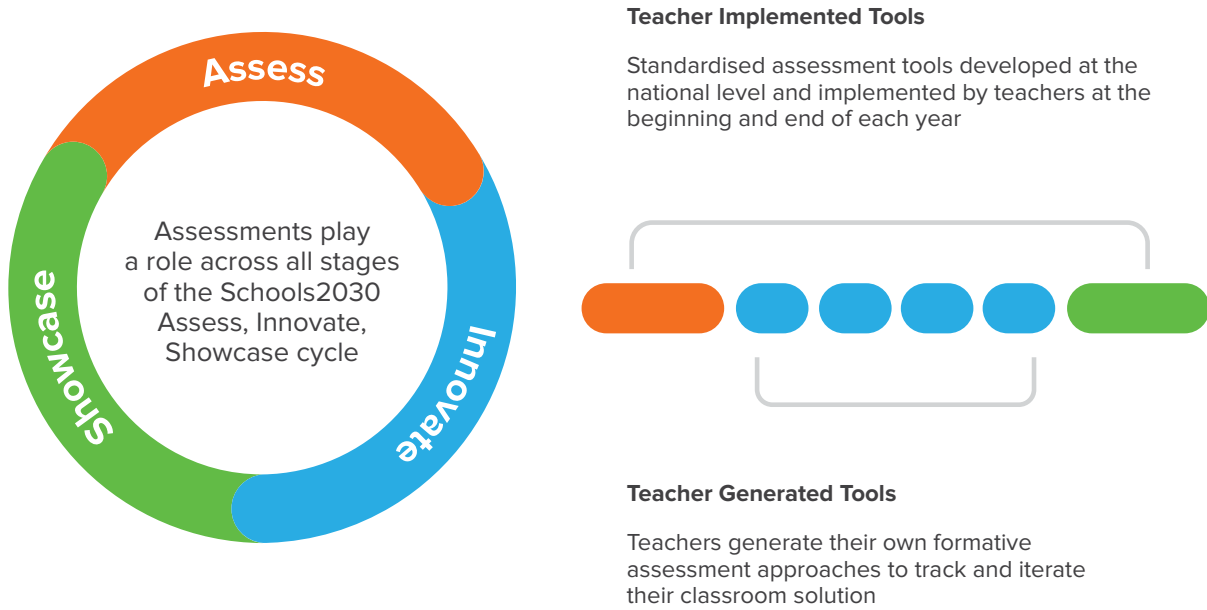


Figure 1 Assessment in Schools2030

Principles for Assessment

We draw inspiration from the work of David Yeager (Yeager, 2020) and others in developing a theory of **‘practical measurement’**. Practical measurement allows teachers to gain the necessary information to adjust teaching and improve learning in their classroom in the immediate term – often through a very small number of targeted, contextual and teacher-led questions repeated through a plan-do-study-act cycle (Yeager et al, 2013). In sum,

Schools2030 has three core principles (see Figure 2) that guide overall approach to learning assessment tools:

It is essential that learning assessments are useful and usable for teachers; a means to transform classroom practices and empower teachers as change agents in the learning process.

The assessment approach and tools must be driven from the classroom and school level. This will ensure that assessment tools are contextually relevant and fulfil Schools2030’s ethos: that improvements to learning outcomes happen when schools are at the centre of social change, not the target of social change.

Schools2030 assessment tools and approaches must be free and open-sourced, providing the sector with new global public goods that can benefit the wider field beyond our Schools2030 programme and partner schools. We partner with national and global experts in assessment so that we contribute to and strengthen the important international efforts on holistic learning outcome measurement.

PRINCIPLES FOR ASSESSMENT IN SCHOOLS2030



Figure 2 Principles for Assessment in Schools2030

The role of teachers in developing, delivering and interpreting assessments

In order to align with the three principles for assessment in Schools2030, the approach to developing assessment is based on iterative collaboration between actors at the global, national and local level. National Assessment Partners (NAPs) in each Schools2030 country lead on the development of the **teacher implemented tools**, working in close collaboration with teachers and other frontline actors to define constructs and develop tools. NAPs also support the development of **teacher generated tools**, helping teachers access and adapt a toolbox of assessment approaches. In turn NAPs are supported by a network of Global Assessment Partners (GAPs), who provide guidance materials and feedback to NAPs throughout the process. GAPs also play a role in synthesising the learning from across the ten countries, and coordinate the production of global public goods in assessment for Schools2030. This relationship between global, national and local is outlined in Figure 3.



Figure 3 Roles and Responsibilities for Assessment

Structure and Purpose for this Handbook

This handbook forms part of a larger set of resources to support partners working on assessment for Schools2030. This is the fourth assessment handbook, specifically focused on supporting teachers with developing and using their own assessment approaches. The other three handbooks cover the process of developing the **teacher implemented tools**. The specific content of handbooks 1 to 3 is shown in Table 1.

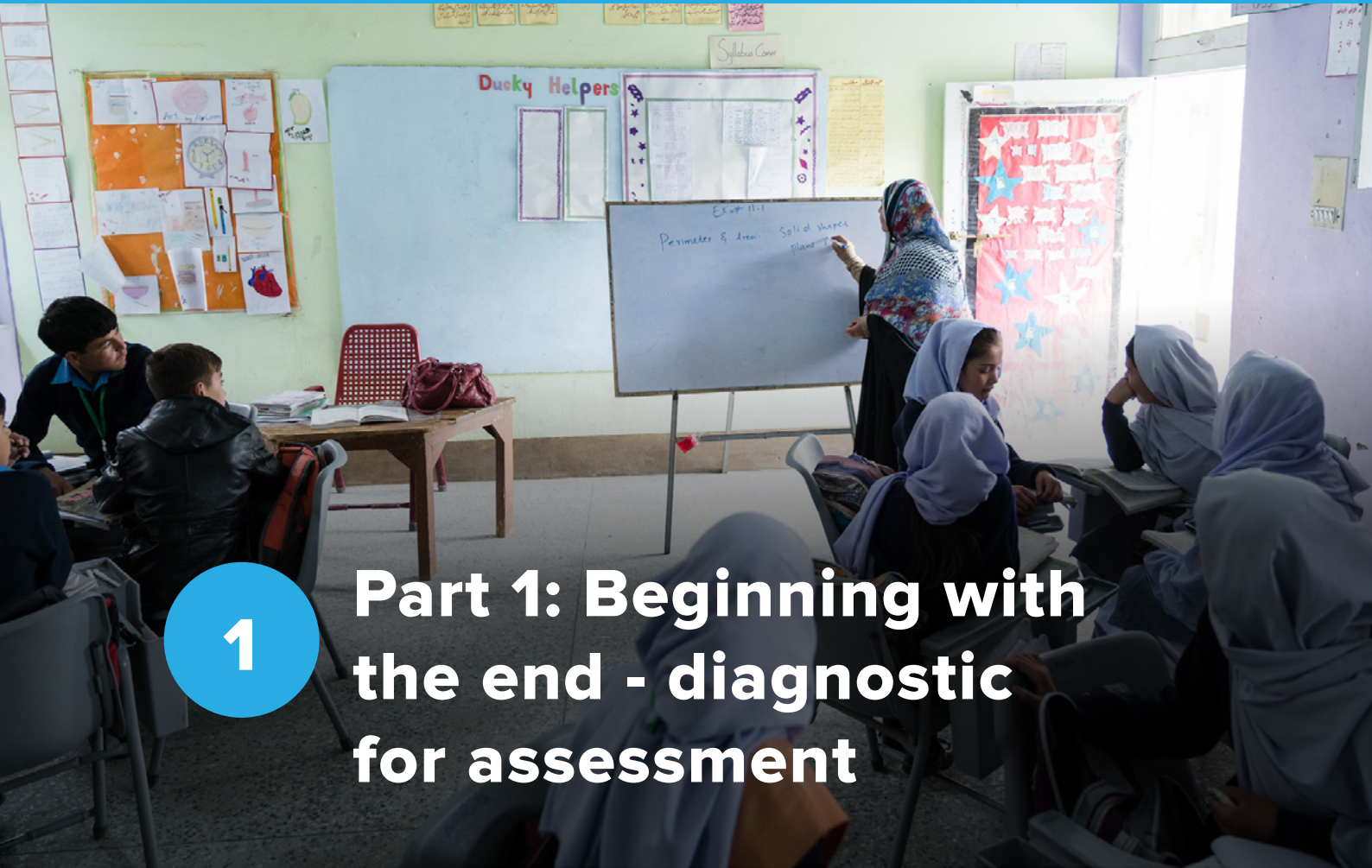
HANDBOOK	CONTENTS
HANDBOOK 1: Core concepts in Assessment	This handbook covers the key questions of why we measure learning outcomes, as well as the basic underlying principles of education measurement. It also introduces concepts of validity, reliability and fairness.
HANDBOOK 2: Designing Academic Assessments	This handbook outlines a general process for the development of learning assessments. It begins with defining the purpose of assessments, before covering the process of selecting or adapting items, and finally of building and piloting an assessment tool.
HANDBOOK 3: Measuring Non- Academic Learning	Handbook 3 is designed to complement handbook 2, by introducing specific issues related to the measurement of non-academic skills. The handbook covers defining non-academic learning, challenges in measurement of non-academic learning, and processes for adapting and contextualising non-academic measurement tools.

Table 1 Schools2030 Assessment Handbooks

This handbook (**Handbook 4**) adds to these handbooks, by addressing the development of the **teacher generated tools**. It is designed to support assessment partners in their role of supporting teachers with assessment.

Part 1	Covers the process of beginning with the end. It provides guidance on how to run a collaborative diagnostic of what teachers already know about assessment.
Part 2	Addresses the process for establishing a shared vision for what teachers want to achieve with assessment.
Part 3	Introduces the concept of the teacher toolbox for formative learning assessments, introducing the different kinds of assessment teachers can use to measure learning.
Part 4	Expands this to include approaches to reflecting on teacher practice, providing a case study of the use of “instructional rounds”.

The purpose of the handbook is to provide a set of principles and approaches to support those working with teachers on assessment. While the primary focus is the Schools2030 programme, the principles and approaches are generally applicable to any classroom or programme.



1

Part 1: Beginning with the end - diagnostic for assessment

What do the teachers know about assessment?

Understanding what teachers know and what they do in practice is key for the success of their students. Often highly experienced and effective teachers do a lot of formative assessment but are not aware of what they are actually doing with their students; they act in second nature.

By unpacking what steps teachers are doing with their learners it is simpler to determine what shifts in their practice needs to take place in order to connect with the national model and feel supported by it. This is also true for the role of assessment in the Schools2030 Human Centred Design (HCD) model. To give this context, consider the following case study.



Case Study: The importance of Teacher Reflections in Assessment

A very experienced primary school teacher assessed her students' learning the basics of energy and its transfer.

More specifically she wanted to know that students were able to:

1. Define energy including the fact that the faster an object is moving the more energy it possesses.
2. Know that energy can be moved from place to place by moving objectives or through sound, light or electric current
3. Understand the conservation of energy and energy transfer: Energy is present whenever there are moving objects, sound, light or heat and that when objects collide energy can be transferred from one object to another, changing motion.

Her assessment was a more traditional test that included examples from labs the students did prior and students were asked in written form to name the different parts of energy transfer, define energy and give their own example.

When marking students' work she noticed that:

- Some students who had previously proven to her via discussion and lab work that they knew the material, performed poorly on the written assessment.
- Other students who were less vocal during discussion times and less involved in the labs also performed poorly.
- Many of the students who performed well on the labs and participated in the discussion did well on the assessment so she knew that the assessment was not faulty.

She decided that the students for whom she knew the material based on her expertise and their engagement and level of discourse achieved the objectives. She decided that the other students, who did not perform well on the assessment nor had been actively engaged in the discussion did not meet the objectives. For the students that she was not yet convinced knew the material, she assigned them additional homework tasks and followed up with a discussion afterwards.

What is interesting in this case study is the multiple inputs the teacher accounted for to ‘give credit’ for proving learning. It was not a singular point such as an exam that proved to be the be all end all; instead, she considered her learners and listened carefully to their responses for the level of depth and accuracy equivalent to responses on an exam. Though this scenario is classroom based and not one that a system could rely on for systemwide data it highlights that, for the purposes of measuring learning, teachers’ expertise and knowledge of their learners plays a key role. In this case study, the teacher was able to specifically identify each student’s discussion contributions and had a notetaking system to capture the evidence of learning to share with the students, her director and any parents who might question or wonder about their child’s knowledge. She tracked student learning on an assessment grid matching the unit objectives and level to which a student demonstrated their depths of learning and listed the types of evidence used i.e., discussion, lab write up, written assessment, exit quiz...

Developing Teachers’ Expertise and Confidence in Assessments

Teaching teachers’ alternative ways to assess student learning requires a level of trust in the system and believing that teachers are the experts backed by evidence and calibration. In the case study, the teacher maintained a folder of student work samples that were reviewed by colleagues and evaluated independently to help her calibrate her expectations and develop a cohesive culture around earned marks. A diagnostic on teacher understandings and approaches to assessment should work to build teacher confidence in the formative assessment practices they already engage with, as well as confidence to adopt new approaches to formative assessment.

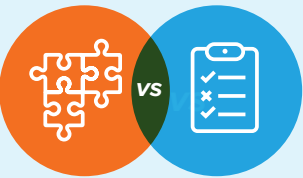
Some ways to approach a diagnostic that does not feel like a ‘test’ include:

1. Starting with a diagnostic that may include observational data,
2. Debriefing case studies and looking at assessment data to determine next steps in teaching.

For school leaders, teacher mentors and those who collaborate with teachers on assessment, it is important to know what your teachers’ assessment practices are and how they are aligned to the national system and the role of assessment in the Schools2030 HCD process. You need to know the national system recognising method of scoring and the emphasis of the different curricular standards as some may have more weight than others. Consider your teachers as a teacher would their students; teachers work to personalise learning for the students and similarly leaders, mentors and collaborators need to scaffold and work with their teachers individually too.

One diagnostic option is the OECD’s Teacher Knowledge Survey Assessment Module available [here](#).

In addition to a written assessment system for measuring teachers’ knowledge about assessment practices, one could also incorporate a more collaborative approach that would help build collegiality and cohesiveness in assessment practices. To illustrate the value of a collaborative approach, consider the case study below, which compares two teachers and their understanding of assessments.



Case Study: Two teachers and their understanding of assessment

One teacher uses a variety of methods to **formatively assess** their learners, provides rich feedback and looks for how the learners use the feedback to advance but then only exams to determine the learners’ outcomes.

Another teacher may have limited experience with formatively assessing and relies only on the **summative assessment** outcomes.

Both teachers require a slightly different approach towards improving their assessment practice yet the ultimate goals are the same- overall improvement in student learning and achieved outcomes. Therefore it is important to know your teachers’ assessment practice in order to design an effective professional development.

What is clear from this case study is that both teachers have an implicit understanding of assessment and its importance but take different approaches. These approaches may be based on their expertise, priorities or previous experience. Crucially they are driven by the same desire, which is to use assessment to support learning.

To support teachers with assessment, we need to have faith that there is a shared understanding that:

The key to all assessment systems is knowing that students are, in fact, learning.

Understanding that teachers all engage in forms of assessment in their day-to-day practice, we can then look at how we can use the differences in teachers understanding of assessment to create supportive communities of practice within schools.

Building diagnostic communities of practice

Marshall, K and Reeves, D in their 2018 article, *Using Student Learning in Teacher Assessment* describe a system of professional development that keeps learning at the centre. In their suggested system the school leader/ teacher coach noted that:

“Administrators make frequent short, unannounced classrooms visits (at least once a month), followed promptly by face-to-face listening/coaching conversations; teacher teams meet regularly to discuss planning, pedagogy, and assessment results; and teacher assessment is saved till the end of the school year, pulling together observations, other points of contact, and teachers’ self-assessments.”

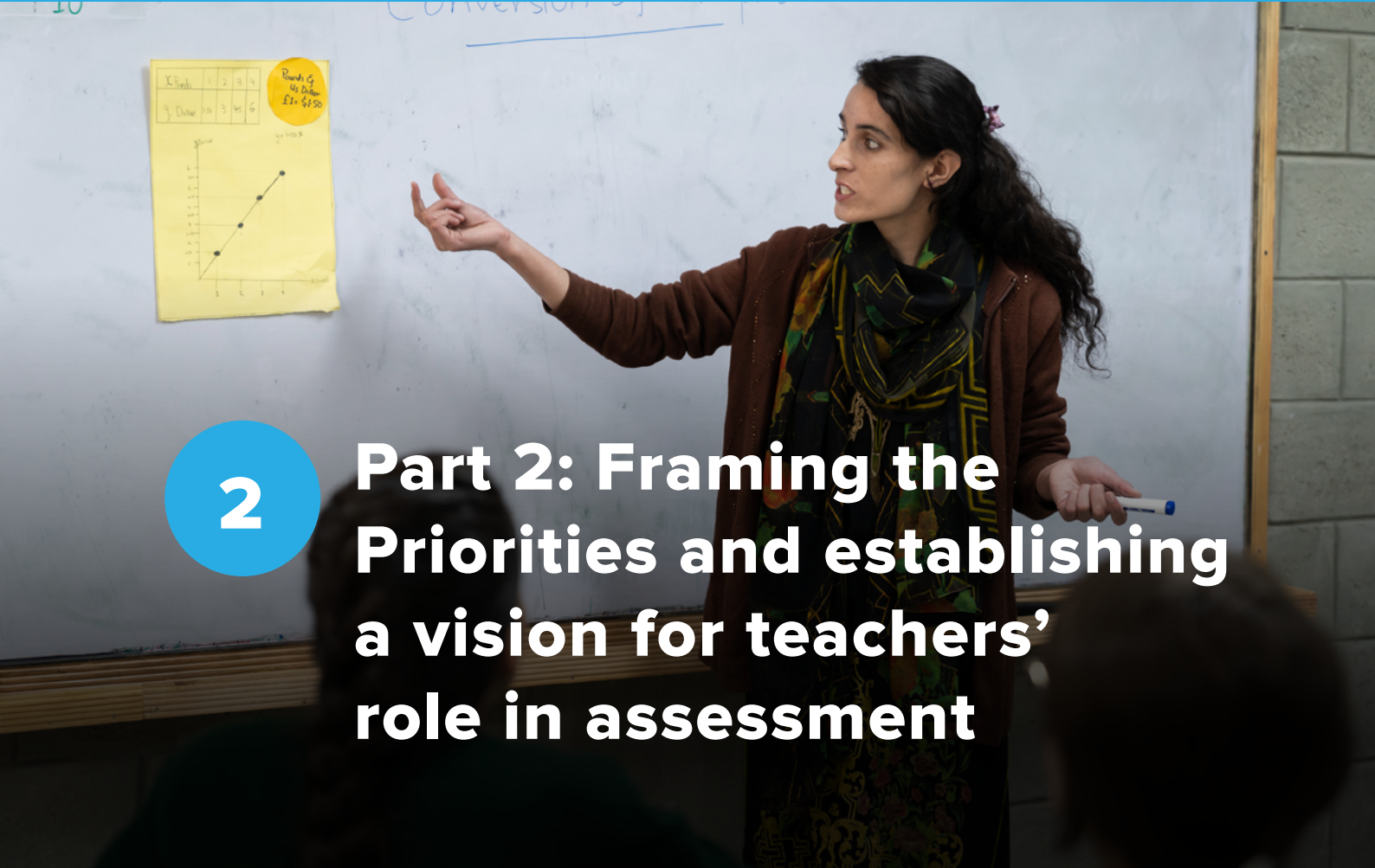
(Marshall, K., & Reeves, D. 2018, April 30)

Collaboration is built into the heart of the Schools2030 approach, whereby teachers are supported to design and implement low-cost micro innovations to improve learning. As outlined above, it is essential that learning assessments are useful and usable for teachers and are seen as a means to transform classroom practices and empower teachers. Therefore, building on Marshall and Reeves suggestion of short classroom visits it would be beneficial to encourage teachers to visit one another informally as well, to help develop a culture of collaboration and sharing best practices.

Similarly, it might be beneficial for teachers to discuss case studies or participate in a common journal article reading on assessment. (See the appendices for some suggestions). When teachers engage with the different discussions, be attentive to their contributions, questions and the quality of what they have shared i.e., student work, their feedback on the student work and the overall assessment marking system.

This approach would focus on facilitating discussions and observations between teachers. By allowing teachers opportunities to discuss with each other their approaches to assessment it will be possible for them to reflect on the extent of their knowledge and confidence. This would result in teachers self-assessing their expertise in assessment. This self-assessment would then feed into setting of objectives (covered in part 2).

While this collaborative approach is more time consuming than the delivery of a diagnostic questionnaire, it will, however, provide the opportunity to build more engagement with the process, as well as providing richer data on what teachers already do, and where gaps are.



2 Part 2: Framing the Priorities and establishing a vision for teachers’ role in assessment

Similar to students, teachers need to know the ‘why’. Why is it important for a school to have an assessment strategy? What is the significance of working as part of a global collective? How will ‘human-centred design’ remain core to the work the school is doing?

As leaders you are well versed in the Schools2030 plan and hopefully feel part of a larger mission and collective effort. Teachers often times may feel isolated in their classrooms tasked with teaching content to their students and sometimes do not automatically see their work as part of a bigger picture. Your role as leader is to help make this bridge between the teachers’ work with their students and the teachers feeling part of a bigger collective, beyond your school, local region and country.

Assessment objectives of the Schools2030 programme

The objective of the Schools2030 assessment work is to improve holistic learning outcomes and nudge changes in the wider education system through the use of global goods. This will be achieved through a combination of **(1)** establishing a set of context-driven valid and reliable assessment in each Schools2030 country, **(2)** supporting teachers to build a toolbox of assessment options, **(3)** consolidating these assessments and supporting their use, **(4)** innovating to build

global goods using assessment data and (5) showcasing solutions and global public goods and supporting uptake. Over the course of Schools2030 programme, the following questions will be advanced:

- What works to develop context-driven holistic learning assessments across diverse settings?
- How can teachers be supported to focus on holistic learning outcomes?
- How can teachers be supported to innovate to overcome barriers to developing children’s holistic learning?
- What can be learnt for improving the wider education system?

Simply put **teachers are at the core of this initiative highlighting the work they do with their students to support learning**. Beyond their own classroom practice is the collective efforts to engage teachers to reflect on their assessment practice and be able to capture key learnings that can be reflected in a more systemwide effort and align national assessment efforts with local assessment efforts.

Facilitating Teacher Learning Cooperatives

In the efforts of best practice, how one shares the ‘why’ behind Schools2030 is key to the success of this work. It is our recommendation to avoid the PowerPoint presentation approach when working with teachers as this is typically a passive experience making it harder for teachers to engage with the process. Instead consider designing the information session as a teacher would deliver their content effectively. Build a learning experience that allows teachers to uncover the *why* and feel connected to the greater initiative. In recognition of this, we propose the title **Teacher Learning Cooperative** to set this training apart from past ones. It is co-operative by definition and implies participation and a premise of sharing.

Below is a sample lesson plan that you may consider modifying for your own teacher team. The plan follows the learning cycle similar to a teacher’s lesson plan.

LESSON OBJECTIVES:

(By the end of this learning experience teachers/staff will be able to answer the following questions:)

1.

What are holistic learning outcomes and how do they connect to my students’ learning?

2.

What is the difference between working with a Schools2030 framework and not?

DESCRIPTION	RATIONALE	MATERIALS
Hook/ Prior Learning /Warm-up		
<p>Post Card: Think back to when you were a student in 8th grade and write a postcard to your older self about a recent test you took- what subject did it cover, what was the format, what learning did it measure, how did you do and how did you feel about it?</p> <p>‘Mail’ the card by putting it into the ‘mailbox’ or a designated box for collection.</p>	When teachers think about their own learning experience it helps them understand the impact of their own teaching on their students.	Blank Post cards or Index Cards Box for mail collection
Present: Share Learning Objectives via jigsaw style		
Ahead of time - take the learning objectives and write them on jigsaw puzzle pieces. Pass out a piece to each of the participants and give them 5 minutes to collectively put it together.	When participants actively engage with puzzle pieces it connects their motor skills with their thinking and pushes participants to talk with one another. This interactivity is key to help the learning ‘sink in’ and strengthen the overall outcomes of the lesson.	Puzzle pieces with lesson objectives written on it.
<p>Plan a journey - in teams assigned to a collection of 3 different geographies that are part of Schools2030 in your country – each team shall plan a 10-day journey to share with others that highlight key information about the geographic area, government, educational priority, and places worth visiting.</p> <p>Each group will share their journey and key learnings that could benefit their own teaching practice.</p>	<p>By engaging with a learning exercise, the discussion should lead to unpacking why it is important to have this vision and what are the advantages to sharing learnings that span different contexts.</p> <p>Facilitators should circulate and ask questions to help the discussion and fuel it towards the ultimate objectives. In addition, they should be listening for evidence that demonstrates teachers learning is taking place.</p>	Poster Paper Maps Markers ...
Key term match-up		
<p>Card sort - in order to establish a base line and common language have teachers in pairs do a card sort where they sort the definitions of assessment types with examples and then ask those that finish early to generate their own examples/ non-examples. The key terms should include:</p> <p>Formative assessment Summative assessment Holistic assessment Grades/ markings Learning Outcomes Validated assessments</p>	Similar to the explanation above - when teachers engage with the physical act of sorting cards it helps reaffirm the key learning and stores the information into long term memory or enduring understanding.	Cards of: Assessment types Definitions Examples

DESCRIPTION	RATIONALE	MATERIALS
Checks for Understanding		
'Deliver the mail' from the first activity and ask participants to match the assessment type to the post card description. In pairs discuss the impact of the described assessment.	By bringing the learning full circle to one's personal experience it deepens the impact of the lesson.	Original post cards
Metacognition/Reflection		
Ask teachers to reflect by answering these questions: From the lesson objectives - what have you learned? Thinking about the overall lesson design how did this impact your experience? Your learning? What would you like to learn about your own assessment practice?	When asking teachers to think about not only the content but also the delivery approach it helps them consider their own learners. Be sure to ask about anything that was 'missing' from this experience i.e., a PowerPoint, diagnostic written assessment ... and ask them to consider the levels of rigour or thinking that this lesson engaged.	1 pager with questions on it with space for teachers to jot down their answers.

This lesson or professional development experience could take place in one sitting or be broken up into 20-minute learning intervals over the course of a few days. The goal is that after this experience teachers understand at a deeper level their role and that this theory of change is iterative.

It is important to keep the momentum moving and begin to formalise the professional learning practice; building from the teachers' contributions of what they want to learn next along with the Part 1's collection of teachers' evidence of their assessment practice.



3 Part 3: Supporting teachers to use a toolbox of assessment approaches

Teachers of all subjects benefit from having an easy access to effective assessment strategies. The key is for teachers to know when to use which strategy and what information they learn from the results of the assessment in order to inform their teaching and students' learning.



Case Study: Supporting a Teacher with Assessment for Learning

A teacher recently asked for suggestions regarding curriculum for an advanced English language course. Their question was: "Do you have a curriculum I can follow to use with my students? My school has no purchased materials for the course and there is only a broad outline of the course objectives on the website".

Instead of responding with a set curriculum I first looked at the course objectives and what skills the learners need to acquire as a result of the course. We identified key objectives the students will be able to achieve as a result of the course. From there I identified the skills and then provided a suggested road map for the teacher to consider in how she teaches the material. The road map used a layering technique where each week she introduces a new skill while reviewing the material from previous weeks; to review previous material, I suggested that she uses past exam questions as a way to measure student progress and to give students practice with the language of the exam.

Defining what is to be measured

In the scenario above a teacher needs to know how to ‘unpack’ or decipher the learning objectives expected of their course. In the case of Schools2030, the objectives may not be included in a curriculum or course document, but rather stem from the intended goals of the classroom solution. Then the teacher needs to ‘package’ their learning objectives in ways that makes sense for both the students and in alignment with the objectives of the course, curriculum or intervention.

Sometimes one could engage learners in writing these objectives through a lesson or two. When students are asked to look deeply at what is expected for them to learn in a course it empowers them to become active learners as compared to being told what they will be learning. When active learning is achieved typically student engagement is higher and results achieved.

Supporting teachers to approach their planning in this manner it would be beneficial to facilitate a few sessions of Backwards Design workshops where teachers are asked to bring their planning material for an upcoming module or unit. Have them read this excerpt on Backwards Design and discuss it with them.

Then lead them through the exercise first with a generic lesson or a common one and then again with their own curriculum. Be sure to identify points for formative assessment that the teacher can implement to check student progress along the way.

If your school team has access to national level standards, then this is a great starting point. To make the connection between the national level and classroom-based practice teachers need time and encouragement to collaborate. One could use a form of lesson study to help teachers develop a practice that includes these attributes or non-academic standards into their unit plans and lesson plans. In a lesson study practice one of the outcomes besides improving lessons would be developing working models for assessing non-academic standards for your school.

If no such common standards exist then school teams would benefit from designing their own matrix by tapping into some models that already exist. For example, there are organisations that have compiled standards, resources and templates. Using one of these (or a collection of these) to create your own school’s toolbox for teachers would minimise the work to create such tools and provide some greater context as to why these standards are important.

To help you access these different resources, below is a shortlist with correlating websites. The key search terms include 21st Century Skills, College Readiness and characteristics of career development.

A teacher toolkit of assessment approaches

Once teachers have used backwards design to understand exactly what it is, they wish to measure they can then find tools that will meet these needs. It is important that teachers understand that there are more options than the kinds of high stakes, quantitative assessments they may be most familiar with. The starting point for choosing tools should be the reflections recommended in parts 1 and 2 of this handbook, focusing on what teachers already use to track progress in their classrooms.

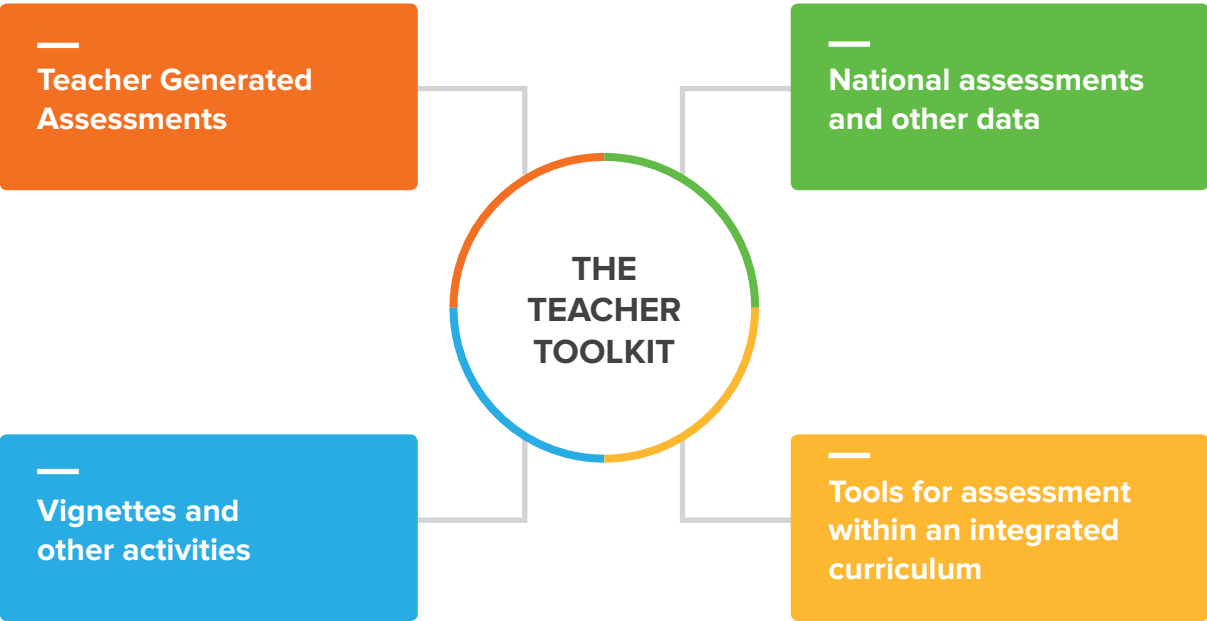


Figure 4 The Teacher Toolkit for Assessment

Teacher Developed Tools

Once teachers have used backwards design to understand exactly what it is, they wish to measure they can then find tools that will meet these needs. It is important that teachers understand that there are more options than the kinds of high stakes, quantitative assessments they may be most familiar with. The starting point for choosing tools should be the reflections recommended in parts 1 and 2 of this handbook, focusing on what teachers already use to track progress in their classrooms.

Figure 5 is an example of how one college group, Activate Learning in the UK designed assessment to help support the development of resiliency. Teachers would use this self-assessment tool with the learners before a lesson and then afterwards to measure growth and progress on these attributes. This shows how a rapid, low-stakes assessment tool can be used, not only to track progress, but also as a way to work with learners to reflect on their own progress.

Assessing Resilience

Scenario 1

You received the results of an assessment you completed and discovered that you did very poorly. Your initial reaction is likely to be:

A. It's ok to make mistakes, it doesn't mean I'm not capable (Belief and Capability)

1

2

3

4

Very unlikely

Moderately likely

Most likely

Very Likely

B. I'll find out what I did wrong and I'll have another go (Passion and Perseverance)

1

2

3

4

Very unlikely

Moderately likely

Most likely

Very Likely

C. I need this grade to get into College/work so I'll find out how to fix this (Commitment)

1

2

3

4

Very unlikely

Moderately likely

Most likely

Very Likely

D. I know I am capable and am open to feedback to help me improve (Confidence)

1

2

3

4

Very unlikely

Moderately likely

Most likely

Very Likely

E. I am determined to find the answer about how to do better next time (Motivation)

1

2

3

4

Very unlikely

Moderately likely

Most likely

Very Likely

F. On a scale of 1-10, how resilient do you think you are?
(1 = not at all resilient, 10 = extremely resilient)

1

2

3

4

5

6

7

8

9

10

Figure 5 Example of Teacher Generated Self-Assessment

Vignettes, observations and other exercises

Another tool that teachers can use to assess learners is through the presentation of tasks which test a learner’s abilities. Depending on the domain being assessed this can take the format of an exercise with a marking rubric, or an activity with an observation rubric.

To track an **academic domain** (e.g., literacy), activities from the curriculum, aligned with the intended sub-domains can be chosen. These activities can be given at regular intervals, and their results tracked in order to track progress.

To track **non-academic learning** there are several options where activities cannot be easily aligned to a curriculum. One example activity is the presentation of a vignette, designed to track a learner’s reaction to a question or statement, mirroring a real-life situation. The answer which a learner gives would then demonstrate the targeted non-academic domain.

Another example would be an observation activity, where learners are given a task, and their reaction to it is observed and recorded by the teacher. These observations are repeated over time, with the teacher using a rubric, or a set of qualitative reflections to track changes over time. This is particularly useful for domains such as collaboration or communication, which are inherently social.

These kinds of approaches to assessment mirror closely what teachers do in their day-to-day work. The main difference is that teachers are encouraged to be intentional about how they align exercises to their intended goals, as well as in how they track the results of the activities.

National assessments and other sources of data

Key to the teacher toolkit, and to the principles of assessment in Schools2030 is the practice of centralising teacher reflections and existing data. Depending on the context, teachers will have a range of data to draw from throughout the year, which can inform the tracking of their solutions.

One approach to making this useful for teachers is to support them with mapping what data will be available over the course of each year. This can be mapped onto the domains that a solution is targeting in order to highlight where, or when there will be a need for other sources of information.

It is also important to encourage teachers to reflect on the data coming from other sources. As was shown earlier in the first case study, teachers have a wealth of rich observations and understanding, that may sometimes contradict the results of other assessments, highlighting where there is a need for other data.

If teachers access data from other assessments which do not match their expectations or understanding of their learners, they should be encouraged to reflect and consider where the mismatch could arise from. In these cases, it may be necessary to think of activities or assessments that can bridge the gap and validate the results of the assessment.

Tools for assessment within an integrated curriculum

Table 2 outlines a range of complementary approaches to generating evidence on student learning in the classroom. This selection of strategies can contribute to the suite of evidence which teachers use to track progress in their classrooms, in addition to some of the specific activities found in the teacher toolkit.

These strategies are an important part of the teacher toolkit as they can easily be integrated into classroom practice. As they don't necessarily take away from teaching time, they can be used more often. In cases where they directly engage learners in reflection, they have an added pedagogical benefit of re-enforcing learning, while providing the teacher with insights on learning.

STRATEGY	WHEN USED	DESCRIPTION (WHAT AND LINK)
Exit Tickets	Used frequently at different parts of the lesson for quick assessment.	<p>Designed to be quick, focused and deliver actionable data for teachers to consider for subsequent lessons to improve student learning.</p> <p>https://www.edutopia.org/practice/exit-tickets-checking-understanding</p> <p>This article describes in detail how to use an exit ticket and ways it can be further implemented within a school community.</p>
Explain What Matters	At different points within the lesson when a 'commercial break is needed' or an opportunity to re-activate/engage learners.	<p>Have students summarise their learning in a tweet or short advert. Be sure to have them share it with others and others to listen for misunderstandings or questions about the material.</p> <p>https://www.nwea.org/blog/2019/27-easy-formative-assessment-strategies-for-gathering-evidence-of-student-learning/</p> <p>This article includes 27 easy formative assessment strategies for teachers to incorporate into their daily teaching practice.</p>

STRATEGY	WHEN USED	DESCRIPTION (WHAT AND LINK)
3-2-1	Use at the beginning or end of the lesson to re-cap learning.	<p>Taken from the article above. This strategy is a personal favourite and can be used with all learners including as part of a professional development session with teachers. One can shift what the 3, 2, 1 values are depending upon what information is desired as a result of the session.</p> <ul style="list-style-type: none">• 3 things you didn't know before• 2 things that surprised you about the topic• 1 thing you want to start doing with what you've learned
Observations	Anytime during a lesson with a specific question or intention to collect evidence for student learning.	<p>When observing students it is important for teachers to take anecdotal records identifying gaps, misconceptions and strengths of learners to incorporate in future lessons and questioning strategies.</p> <p>https://www.utwente.nl/en/examination/faq-testing-assessment/60formativeassessment.pdf</p> <p>Comprehensive list of 60 different strategies for formative assessment. Consider sharing a few each professional development session and then asking teachers to share their own. Cross reference the teachers' strategies to the list to check for common practice and add to the list as necessary.</p>
Frayer Model	Use when there is a lot of vocabulary or key concepts for students to learn.	<p>A vocabulary graphic organiser tool that asks learners to state the meaning of a word, use it in a sentence, draw a picture and provide a non-meaning of the word. The power in the model is in non-meaning as it has been evidenced when a person can describe what something is not then in fact they know what it is to some degree.</p> <p>https://www.theteachertoolkit.com/index.php/tool/frayer-model</p> <p>The Teacher Toolkit has a great video that models how the Frayer Model supports student learning and assessment. In addition, there are several other examples for how the tool works at different levels as well.</p> <p>Personally, in teacher training we have used this tool to help teachers identify the different types of pedagogy or educational theories as well.</p>

Bringing it all together

Ultimately it is essential teachers incorporate ongoing formative assessment strategies and use the data from these to inform their teaching practice and student learning. More traditional teachers may go through several lessons of delivering content without checking student learning. Also in these settings students are typically passive learners instead of active. Shifting practice to more active learning and a continuous assessment practice may require ongoing professional development that models these different strategies and reinforces the ‘why’ behind the Schools 2030 objectives.

The concept of the teacher toolkit builds on the notion that data on learning should come from multiple different sources, many of which are available to teachers without the need for additional work. To bring these sources of information together, teachers can be encouraged to keep journals or notebooks, detailing their reflections on how learning is occurring. This can also be used to document sources of information, including from other assessment activities, observations of learners throughout other activities, or the results of specific formative assessment activities (as outlined above). In time, these reflections from teachers on how they are using assessment approaches in their classroom can be used to broaden the contents of the teacher toolkit, contributing to Schools2030’s commitment to global public goods in assessment. The next section provides tools to use to help teachers, and their schools/institutions move their practice.



4 Part 4: Supporting teachers to reflect on their teaching practice

Introduction

Supporting teachers with assessment is not just about giving them tools to track the progress their learners are making. We can also support teachers in reflecting on their own teaching practice, and the practice of teachers around them. This can be linked with formative data on student learning to support continuous improvement.

In particular, for Schools2030, this should be linked with the iteration process of testing and continuously improving the solutions being tested. This data on practice will be particularly useful during the [test](#) and [iterate](#) phases of the human-centred design process. Reflecting on practice will help teachers reflect on and contextualise the formative data on student learning they have.

There are many approaches that teachers can take to supporting each other to reflect on their practice. These can be individual, for example through the use of journals to reflect. They can also be collaborative. The rest of this part is dedicated to a case study of a collaborative reflection approach.



Case Study: Using Instructional Rounds to Reflect on Teaching Practice

Instructional Rounds is a schoolwide improvement strategy originally designed and shared by Lee Teitel mirroring the concept of rounds that take place in medicine. Often doctors and medical staff would go on medical rounds in a hospital looking at a specific problem. For example, the frequency of hand washing or the signage regarding the steps for intaking a patient.

The round would serve as a tool for collecting evidence through observation. Then the team would gather, organise the evidence and look for patterns. (Teitel, L. 2009)

They would ask key questions around consistency, what was observed, what was not observed, and strict protocols would be placed to stay focused on the problem at hand and not turn it into a blame game.

Then once patterns are identified the team would action next steps to improve the problem and the next round would be set.

Instructional rounds work similarly and can involve the whole school community. This section outlines an approach that was created to train school leadership teams in Los Angeles Unified School District in how to conduct instructional rounds. This practice was used by a handful of teams to help improve instruction, parent-school communication, and student engagement.

One of the greatest challenges when implementing this practice is how to be sure the team withholds judgment and stays focused on un-biased evidence collection. To do this schools need to have a culture of trust and transparency.



This document is designed to provide an overview of how to implement instructional rounds in a school.

The purpose of instructional rounds is to support a school in monitoring the patterns of practice in classrooms for the purpose of improving student achievement. For the purposes of this handbook on assessment instructional rounds could be the strategy a school embarks on to improve the overall quality and effectiveness of teacher created assessments.

It is important to remember that the observation is not the professional development

instead the discussion and revision of the problem of practice in the presence of observation data is more likely to be the work that will support improvement in the school. The table below outlines the relevant steps of the instructional rounds process.



 Rounds are not...	 Rounds are...
...“Walkthroughs” or “drive-bys”	...descriptive, analytic, inferential
...A teacher evaluation tool	...focused on the practice rather than the teacher
...An implementation check	...focused on patterns of practice, not compliance with directives
...Training for supervision	...focused on collective learning, rather than individual supervisory practice
...A program or a project	...A practice, designed to support an existing improvement strategy at the school or system level

- Before embarking on implementing instructional rounds, facilitators should deeply consider the extent to which a school has a culture of transparency in teacher practice.
- This culture of transparency requires a collaborative and collegial staff that is regularly engaged in discussions about their own practice and the practice of their colleagues.
- Norms of collaboration should be well established, and a process for holding all staff accountable for their actions and words should exist while engaged in professional development like instructional rounds. Schools with significant strife or cliques should consider implementing regular culture-building activities prior to engaging instructional rounds.
 - Relational trust is critical among a staff because instructional rounds evidence must be owned as a collective. Staff, and individuals must be willing to be honest and reflective about their own practice and the practice of their colleagues.
 - Instructional rounds are a practice everyone participates in as an equal. Therefore, the school hierarchy of school leader to teacher needs to be considered and perhaps the rounds be led by teachers.



Step 1: Problem of practice

- The problem of practice focuses the attention of the observers on specific teacher and student observational evidence and discussions about that evidence. Generally, the problem of practice should focus on an instructional problem that is observable in the classroom within the control of the educators in the school. Helpful tips for the development of a problem of practice include:
- Begin with student data from your school—which students are struggling and why?
 - Consider observational evidence already available to the school —what past school review data are available?
 - Summarise all recent past and current instructional initiatives that the school has implemented—why were those initiatives important and what was their effectiveness?
 - Consider conducting an initial walkthrough or general instructional round to gather evidence about current instructional practices—what is the current state of instructional practices in your school?
- Problems of practice should be developed using protocols that engage all staff in providing input and include an opportunity for all staff to analyse and evaluate the overall evidence and potential problems of practice.



Step 2: Observation of practice

In preparation for classroom observations, all observers need to be clear about the expectations and norms for conducting observations for instructional rounds. It is usually helpful to review these guidelines and expectations each time with the observation team, even if the team has conducted instructional rounds in the past. This is especially helpful since an observation team may be able to practice calibrating their observations by identifying examples of the types of evidence that they expect to collect that are aligned with the problem of practice.

Observation Guidelines

Observations should collect objective, low inference evidence about classroom practices aligned with the problem of practice across the school.

Evidence collected will be analysed to summarise the patterns of practice across a school. Best practices for observations and debriefing include:

- Remind all participants that the review debrief and observation is confidential
- Make every effort to not disrupt the lesson
- Observers may speak with students as long as it does not disrupt student learning
- Spend about 10-15 minutes in the classroom (stay long enough to collect enough evidence)
- Do not debrief after each classroom observation (because we will be debriefing all of the observations together)
- Do not record teachers’ names or room numbers
- Do not refer to specific teachers or classrooms during the debrief – evidence should refer to classrooms overall
- Groups should be randomly assigned classrooms for observation
- Collect all completed observation forms at the end of the visit

Examples of Evidence Collection for Observations

Evidence collected from classroom observations should be a factual reporting of events that are not clouded with personal opinion or biases. Evidence may include teacher and student actions/behaviours and artifacts prepared by the teacher, students, or others.

Types of observation evidence may include:

- *Verbatim scripting of teacher or student comments:* “Bring your white boards, markers and erasers to the carpet and sit on your square.”
- *Non-evaluative statements of observed teacher or student behaviour:* Teacher presented the content from the front of room.

- *Numeric information about time, student participation, resource use, etc.:* [9:14 – 9:19] Two groups started on the assigned project immediately, one group talked for five minutes before starting.
- An observed aspect of the environment: Desks were arranged in groups of four with room to walk between each group.

EXAMPLES OF EVIDENCE	EXAMPLES OF OPINION
<ul style="list-style-type: none">• “I assure you that today’s lesson will be quite interesting.”• As the activity progressed, students started calling out, “What should we do next?”• Students worked with a classmate in choosing key scenes and discussing the reasons for their choice.• The teacher said that the Civil war was a tragedy for U.S. civilization.	<ul style="list-style-type: none">• The pacing of the lesson was slow, allowing for student restlessness, disengagement, and disruptive behaviour.• The new table arrangement encourages concentration and controlled interaction with neighbour.• Some students have difficulty paying attention.• The last activity, discussion of the key scene, was rushed.



Step 3: Observation debrief

The observation debrief involves all groups reflecting on and analysing the evidence collected from the classroom observations. Divided into three phases, the observation debrief still requires the participants to be reminded of some important guidelines:

- Focus on the evidence observed
- Be diligent about focusing others on evidence rather than opinion
- Remind all participants about the confidentiality of the observations and the debrief
- Review the norms of the instructional round

- Consider setting time limits for the debrief
- Build in time during the debrief for each observation group to review the findings of the other teams
- When possible, summary statements about evidence from multiple classrooms should be quantified (e.g., 3 out of 4 classrooms had student work on walls)
- If summary statements are not quantifiable, then participants should share a common understanding of certain summary terms (e.g., few = less than 3, some = less than half, most = majority)

Describe What You Saw

1. Participants should first review their notes from the observations, highlighting or noting any data that seem relevant to the problem of practice or any other important data.
2. Participants should then individually write summary statements based on the highlighted data.
3. Participants on the same team should then share their summary statements with each other, providing feedback and corrections if necessary to craft some shared summary statements from the team.
4. Participants on the team then write each summary statement and post it for other teams to see.
5. Teams should have some opportunities to review the statements from other teams in order to align evidence summaries from all observations.

While some instructional rounds references cite the use of post-its as a tool for this process, the free web application Padlet is also a great alternative. Padlet also allows all of the evidence to be immediately recorded and saved in a digital format that can be shared and manipulated by others.

Analyse the Descriptive Evidence

This step in the debrief process involves having the observation teams review all of the summary statements from all of the teams in order to identify any patterns or groupings.

The advantage of using post-its or online tool such as Padlet is the easy manipulation of the summary statements from one position to another in order to physically group statements that are similar or have a similar theme. Some guidelines for this step include:

- The team members will develop professionally by engaging in discussions about the evidence using clarifying and probing questions (e.g., what did your team mean by this statement?)
- Consider the use of protocols for having each team member contribute their observations about patterns (e.g., silent moving of post-its, round robin)
- Facilitators or team members may want to use labels and/or symbols to identify or connect the statements together
- Facilitators should remind team members of the norms for collaboration

Predict What Students Are Learning

The guiding question for this step is: If you were a student in this class/ school and you did everything the teacher told you to do, what would you know and be able to do? Participants should engage in a discussion within their observation teams about what students were learning in the observed classrooms. Each team should be prepared to share out their predictions and the justifying evidence.



Step 4: Brainstorm the next level of work

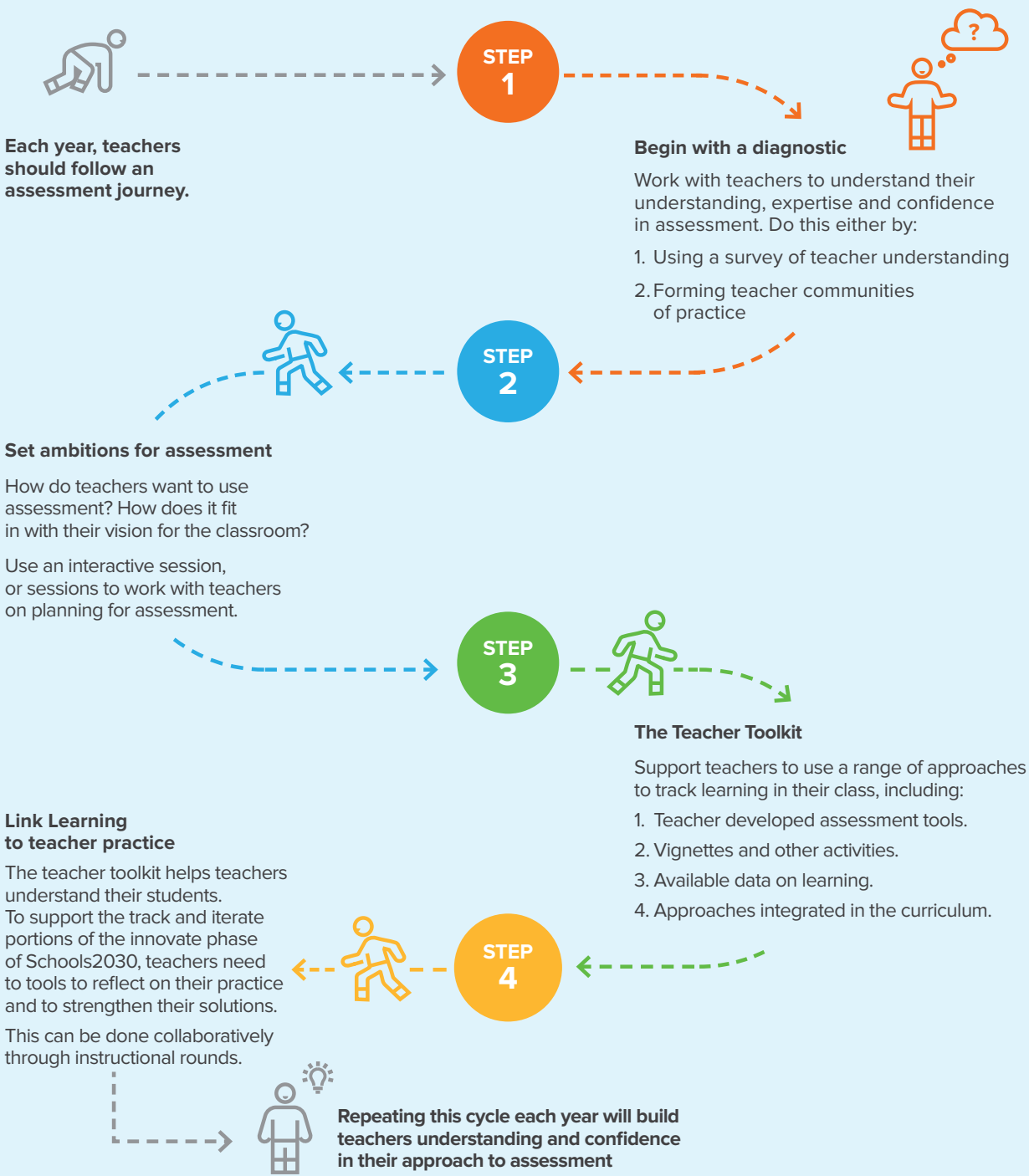
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- Focus on the evidence observed
- Be diligent about focusing others on evidence rather than opinion
- Remind all participants about the confidentiality of the observations and the debrief

Conclusion

This handbook has outlined a yearly journey that can be followed with teachers to strengthen their engagement with generating and using assessment tools.

This approach builds on the core principles of Schools2030, in focusing on and building upon approaches which teachers already use in their classrooms. It is crucial to be aware of the many competing pressures that teachers face, and to prioritise approaches that support teachers in their work, rather than creating additional burdens.



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DESIGNING LEARNING ASSESSMENTS

