

## school based teacher development programme transforming classroom practices

### Transforming Classroom Practices Programme

The School Based Teacher Development (SBTD): Transforming Classroom Practices (TCP) is one of the dimensions UNRWA's Reform Strategy. The programme aims at improving the teaching and learning practices of teachers in the classroom by developing active learning pedagogies that will support effective engagement of the students. It will be the basis for an in-service training programme for all UNRWA teachers.

The programme adopts a blended learning approach and consists of 6 modules. Each module focuses on one of the aspects of the teaching-learning process. Collectively, the programme materials are the backbone of providing quality teaching and learning practices in UNRWA schools.

The modules are built interactively where the teacher is requested to reflect on his/her practices and to try the use of a variety of learner-focused strategies.

module three



**assessment for quality learning**



Bayader Wadi Seer  
PO Box 140157, Amman 11814, Jordan  
Telephone: 00 962 6 580 8100  
Fax: 00 962 6 580 8335  
[www.unrwa.org](http://www.unrwa.org)





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A decorative header at the top of the page features a light blue background with a white grass-like border at the bottom. Various school-related icons are scattered across the header, including a ruler, a pencil, a book, a globe, a magnifying glass, a pencil sharpener, a pencil, a pencil case, and the letters 'ABC'.

## **Introduction to the School Based Teacher Development programme (SBTD)- Transforming Classroom Practices (TCP)**

School Based Teacher Development programme (SBTD)- Transforming Classroom Practices (TCP) is a key dimension of UNRWA's Education Reform Strategy. The programme seeks to improve teaching and learning practices in the UNRWA classroom through developing interactive pedagogies or ways of teaching that will engage children more effectively in their learning. The SBTD is paving the way for comprehensive in-service training for all UNRWA teachers. There are six Open and Distance Learning modules and each of these focus on different aspects of teaching and learning that together provide an overview of many different approaches and ways to develop quality teaching and learning in UNRWA Schools. The text modules are interactive and ask the teacher to reflect on their practices, try new approaches and consider the impact they have on the children's learning and motivation.



## **Intro to Module 3: Assessment for quality learning**

### **Unit 9 Strategies for developing learner centered assessment practices**

Assessing children's achievements and progress in their studies has taken on a significant focus in recent years so that much more emphasis is given to the role of assessment as an ongoing part of the daily teaching and learning process. This unit asks teachers to audit their current assessment practices and provides insight into different ways of finding out what a child or class knows and understands at different stages of a topic. This will enable the teacher to plan more effective and targeted lessons. It also discusses the importance of giving feedback to children about their achievements.

### **Unit 10/11 Questioning techniques to promote formative assessment practice for student learning (double TDU)**

This unit is a double unit as the questioning as part of the teaching and learning cycle is so important. How, when and what kinds of questions a teacher uses can have a dramatic impact on the lesson and successful learning outcomes for children. Too many teachers ask closed questions where a child has to just give the correct answer. This unit explores how by asking more open-end questions a teacher can help children to think more deeply and become more interested in a range of topics. Children can also be encouraged to ask their own questions about a topic which they can then try to answer through investigation. Such approaches stimulate much more participation and success in learning.

### **Unit 12 New ways of recording progress in learning**

It is important that teachers keep records of children's progress that they can use to plan the next steps of learning for all children. This unit explores how important it is to have clear learning outcomes for each lesson and for the teacher to be clear about what evidence they need to be sure that a child knows and understands what was taught. The unit shows how a list of test marks tells the teacher little but that annotated samples of children's work or test marks with comments can give a much better picture of their progress and thus enable the teacher to plan more effective next steps. Keeping a range of records allows a teacher to identify more clearly, which children need extra support and what kind of support they need and examples are given in this unit, that teachers can try in their classrooms.



## Module 3 Unit 9

# Strategies for developing learner-centred assessment practices

## Introduction

Teachers plan what they are going to do in their lessons, either on paper or in their minds, but often do not share these with the children they teach. This means that children are often not sure of the purpose of what they are doing in class, or what might follow as a consequence. Many children come to school with only the vaguest idea of where the curriculum will take them that day. They enter the class and wait for the teacher to reveal what topic (or textbook page) they will be working on.

This module on assessment is premised on the idea that children need to know a great deal more about the educational journey they make in school, including the direction they are taking and the points they need to reach on the way to a final destination.

Children need to know:

- where they are in their learning;
- where they are going;
- how to get there.

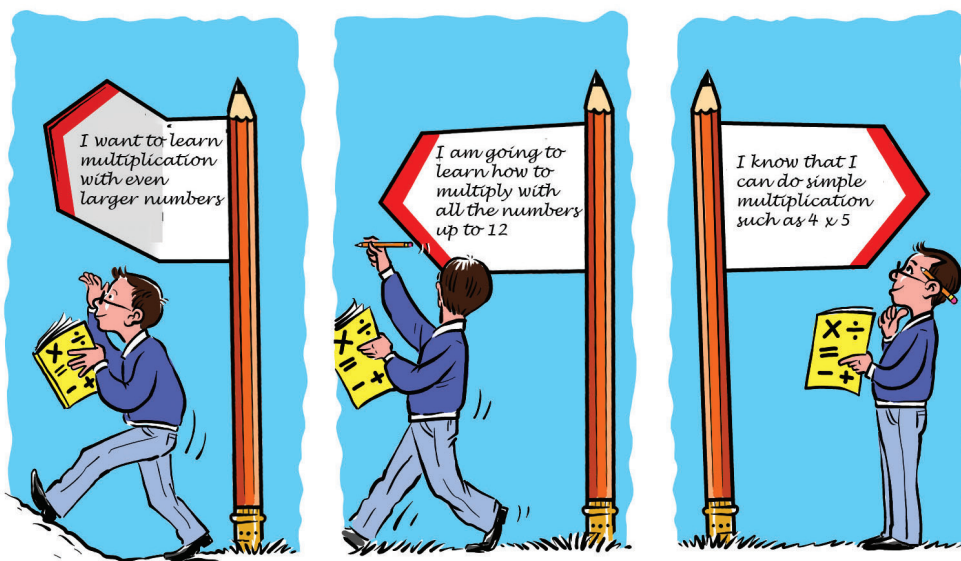


Figure 34: In order to learn successfully, students should know where they are in their learning, where they're going and how to get there.

Assessment today should be concerned with helping children to develop these capabilities. It should involve children and their teachers finding evidence and interpreting evidence in order to help with this process.

## Teacher development outcomes

On completing this unit you will have developed your:

- understanding of and ability to use formative assessment (assessment for learning) in developing active approaches to pedagogy;
- understanding of and ability to identify the difference between formative and summative assessment;
- understanding of and ability to give regular, high-quality, individual feedback to children about their learning progress.

## Learner-centred assessment

Understanding the power of assessment to improve teaching and raise levels of children's achievement has become a major area of development in recent years. As a teacher, you always need evidence of children's achievement and progress in an activity, in a lesson or series of lessons. You need this to plan next steps for children and to modify your teaching to better meet their learning needs. You also need to gather evidence over time in different ways to evaluate how effective the teaching and learning process has been. Assessment enables teachers to determine what children need, but for assessment to be accurate, they need multiple measures of children's understanding.

Traditionally, assessment has been associated with tests or examinations that provide 'summary' information about children, that is, at the end of a stage. The emphasis may be on how a child compares to others in the class rather than what the child actually knows. Many of us will remember being first or second or fifth, whatever, in a class test. These sorts of assessment are termed summative assessments. Assessment information that we observe and record as we are teaching, to monitor whether individual children are making progress in their learning, is termed formative assessment.

There is now very substantial research evidence about assessment practices in schools. Teachers who work to develop their formative assessment strategies get better results with children. For example, if a teacher adjusts his/her teaching to take account of formative assessments made in the lesson, the children's understanding and involvement will rise. One piece of research (Black & William, 1998)

examined more than 250 research studies from different parts of the world and drew the following conclusions:

- Improving teachers' formative assessment skills raises standards.
- Teachers who kept improving their use of assessment in teaching and learning gained even better results.

The term 'assessment for learning' is now commonly used to describe formative assessment strategies. Look at the diagram below, which summarises some of the key characteristics of this strategy.

Assessment for learning is a powerful way of raising children's achievement. This is based on the principle that children will improve most if they understand the aim of their learning, where they are in relation to this aim and how they can achieve the aim (or close the gap in their knowledge). It is seen as central to effective teaching and learning.



Figure 35: Assessment for Learning can help raise children's achievement.



These characteristics represent the general attributes of a good teacher. The assessment for learning focus asks teachers for more detailed information about the progress children are making on meeting specific curriculum targets. Teachers need to know which children are developing understanding and which children are struggling, so that they can think of different ways to help them make the connections that will enable them to learn.

### **The value of assessment for learning**

As you work with children – asking them questions, listening to their explanations or reading their written work – you are making judgments, i.e. assessments, about what you think they have understood and learnt.

However, it is very important that you are clear about what you want the children to learn. Teachers need to have clear learning outcomes or criteria for success. Using formative and criteria-based assessment requires you to be very clear about the learning objectives for the lessons you plan and make sure that the children know what they are trying to learn. One teacher, for example, told her class:

*‘This week we are going to be learning about volcanoes. We are going to begin with a general brainstorming about what you know about volcanoes, but by the end of the week I will expect you to know two things:*

- *Why volcanoes can lie quiet or dormant for some time and then, sometimes suddenly, sometimes slowly, explode.*
- *Why there are more volcanoes in some parts of the world than others.’*

The lesson that she had planned was structured to ensure that the activities and explanations that she was to use during the lesson would help the children achieve these objectives. The way this teacher questioned and talked with the children was to help them make sense of the information and activities. Having clear learning objectives enables you, as the teacher, to also give more focused feedback that will help children link ideas together.

The giving of clear learning outcomes, which define in advance what a child needs to know, can be specific to one lesson or related to a longer period of work. Each child should be assessed against the criteria to see how well he/she is progressing towards achieving the criteria using formative assessment strategies.

Assessment for learning is based on the everyday routines of teachers, such as asking questions, talking and discussing pupils’ ideas. For example, when you ask a question such as ‘Can you tell me what a dormant volcano is?’ you are actually

carrying out an assessment (does the child/group/class understand this concept?). As the child responds, you judge what he/she knows and decide whether to ask more questions or to do something different to help the learning process.

You are going to focus more on questioning in Units 10–11, because questioning is so important to developing active pedagogic strategies and helping learners develop their thinking skills. But first there is a need to explore further about the processes of assessment. Read Case Study 20, which describes the different strategies Nabeel uses to assess his pupils' learning.

### Case study 20

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Nabeel teaches a Grade 5 class in Syria.

At the end of one week when he had been teaching about volcanoes, Nabeel wanted to find out what the children had learnt. So, he gave them a description of the way volcanoes develop and erupt but he left blank 20 key words that had to be filled in. Every child wrote his/her name on the paper and then proceeded to fill the gaps in. On completion they exchanged their papers with another child and then Nabeel had a question and answer session to agree the answers and for the children to mark each other's work. They returned the marked sheets with a count of correct answers listed at the bottom. Nabeel asked for a show of hands as to who had got more than 5 correct. Nearly all the children put their hands up. Nabeel asked them to keep their hands up if they got more than 10. He then asked them to keep their hands up if they got more than 15. As he saw the hands come down, he got an idea of who had succeeded well and who was having difficulty – but in a positive way that didn't make any child feel bad. He collected in the volcano sheets so that he could see, later in the day, whether there were common errors among all the children.

Next he told the class that, for homework, they had to think about how they could explain the reasons why a volcano erupts to a Grade 2 child. He asked them to write notes about this and bring them to the next lesson because the following week they were going to try out their explanations.

Nabeel took the volcano sheets home and, as he prepared his lessons for the following week, he looked at which children had done well and who needed more support.

For his next lesson he organised the children into groups, putting stronger and weaker children together. He asked each group to work on a presentation about volcanoes for a group of Grade 2 children. Nabeel went round the groups sup-



porting the children he had identified as needing extra support sensitively, asking questions of individuals and the group to ensure everybody understood about volcanoes. The children practised their presentations and Nabeel gave feedback to each group, both on the content and ways of presenting, to help them make their presentations more effective.

The children in Grade 2 came to hear the presentations and Nabeel went around and listened to the different groups presenting to the Grade 2 children. As a consequence, Nabeel was able to judge that only two children had still not fully understood. During a class reading activity the next day, he took the two children aside for ten minutes and helped them to understand by asking them together to describe what they knew about volcanoes and helping them when they were not sure.

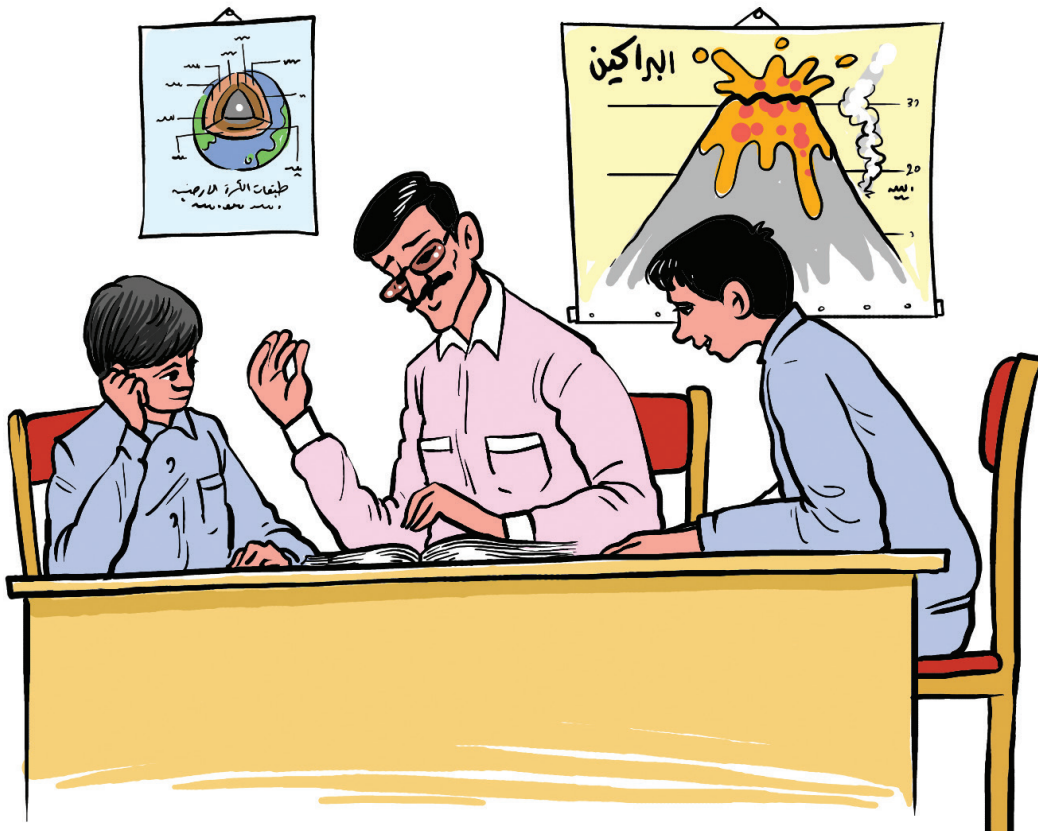


Figure 36: Spending time with students who are finding something challenging can help them to get back on track.

### Comment



You saw in this case study that Nabeel used three ways of assessing how much the children knew and how well he had taught them. The first was quick and gave limited information about the problems his pupils had in learning about volcanoes, but it did give him an idea of how many children might still be confused. Secondly, because

*of his concern, he set the homework task so he could explore their understanding more. The next lesson, with careful planning and organisation, he was able to do more to help the children. Thirdly, he listened to their presentations by the Grade 2 children. By the end of the presentations he knew that only two still had difficulties and he organised a special time to allow these two to catch up.*

*Think about your own teaching. How often do you use these sorts of approaches?*

To be really effective, a teacher needs to challenge and enlighten his/her pupils' thinking and understanding each and every day. In order to do this, though, the teacher needs to be aware of what the children already know and use this information to build and extend their knowledge and skills. So, how do you gather information about the children in your class? The next activity asks you to audit your current ways of finding out what your children know.

## Activity 20

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You are about to audit your own assessment practice. In the following chart there are 15 statements. You need to read these through and then rate yourself on each one using the following four-point scale:

- Mostly true (1)
- Often true (2)
- Rarely true (3)
- Never true (4)

Now complete the chart on the next page.

Then look at the pattern of your answers to see what it tells you about the range of assessment practices you use. What could you do to extend your range of practices? Identify one or two that you could try over the next week to help children learn better. Make a note of these in your course notebook and plan when and how you will use them. Think also how you will reflect on their effectiveness and what impact they had on the children's motivation and learning.



### Teacher audit of assessment practice: Checklist

Please put (✓) under the suitable heading alongside each statement.

Assessment practices	Mostly true 1	Often true 2	Rarely true 3	Never true 4
1. Assessment provides me with useful evidence of my pupils' understandings, which I use to plan subsequent lessons.				
2. The feedback that my pupils receive from me helps them improve.				
3. My assessment practices help children to learn independently.				
4. Children are told how well they have done in relation to their own previous performance.				
5. My assessment of children's work includes comments and helpful guidance.				
6. I provide guidance to help my pupils assess their own work.				
7. I identify the children's strengths and advise them how to develop their strengths further.				
8. Children are encouraged to view their mistakes as valuable learning opportunities.				
9. I use questions mainly to elicit reasons and explanations from the children.				
10. I keep records of individuals' learning progress.				
11. Assessment criteria are discussed with children in ways that they understand.				
12. Children are given opportunities to assess one another's work.				
13. I regularly discuss with children ways they could improve how they learn.				
14. Children's learning objectives are discussed with them in way they understand.				
15. Children are helped to find ways of addressing problems in their learning.				

Table 6: Teacher audit checklist

## Comment

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Assessment for learning strategies, like those listed in Activity 20, show how dynamic the teaching and learning cycle really is and how important your role is in getting to know how your pupils learn best. Did trying out the new strategies give you new insights into your pupils' understanding or ways of learning? Learning more about the children you teach enables you to support them better.

One of the most useful strategies in terms of assessment practice is giving feedback, and this is what is explored next.

## Feedback

Research shows that it is important that teachers keep children informed about their progress in learning and their skills of learning. How can children expect to improve if they are not given advice on how to do this? Providing feedback on how to learn, that is discussing with them the strategies they used and how effective they were in helping them learn, helps children to think about different ways of learning. Children also need feedback on what they have learnt and where they could extend their learning. All these strategies will have a real impact on children's progress.

What is meant by feedback? Here we mean that feedback is giving information about a child's success in learning during an activity, a lesson or a term, and providing support and advice on how to improve. The child needs to see the information given during feedback as useful, otherwise he/she will not act upon it.

The next activity begins to look at the question of providing feedback and how you currently do this.

## Activity 21

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Choose a lesson you are teaching this week. Then, as you go through the lesson, make a note of:

- the times you give feedback to a child or the class about their learning progress;
- the names of the children who received that feedback.

Keep a record of your answers in your course notebook.



Find a colleague also on the SBTD programme in the school who has done the same exercise, and who you do not mind sharing this information with, to discuss the following questions:

- What percentage of children received feedback in the lesson?
- Could you have changed the way you gave feedback to include more children? If so, how?
- Could you have changed the way you gave feedback to include fewer children having more detailed feedback? If so, how?
- How would you ensure in future lessons that those children not receiving feedback in this lesson do not miss out?
- What strategies could you use to allow you to give feedback to groups rather than individuals?

After your discussion, make notes in your course notebook of the different ideas you thought about together and suggest when, and how, you might use them.

## Comment

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Sharing ideas and trying out new assessment and feedback strategies and techniques, in collaboration with a colleague, can be very supportive and helps you to explore the ideas more fully before using them. Also, talking about how things went in a lesson helps you to reflect on the experiences with more and more professional insight as you see the impact of the changes you have made.

In recent years there have been two significant related changes in traditional ideas about school assessment. The first is the increasing emphasis that has been placed on giving regular frequent feedback to children. The second concerns how more and more education systems have been adopting a criteria approach to assessment, where learners are assessed against a set of learning outcomes or criteria that were made explicit to them at the start of their work.

Feedback, as has already been said, is very important. There is research evidence that some children can sit in a class for months and never have an individual conversation with the teacher! When we think about our memories of good teachers, they are always people who made time for us.

Now read the case study below, which explores how Omar set about improving his skills in giving feedback.

## Case study 21



Omar was concerned about the quality of feedback he was giving to his Grade 4 mathematics pupils. Most of the time, he just gave marks with the occasional comment. But Omar had participated in a recent teachers' meeting where he heard how research had showed that commenting on children's work was very important. He knew however that although it was important, it was difficult to do because he had a large class and commenting in detail took a long time. After thinking about this, he came up with a new approach.

- He would try to talk to every child individually every three weeks and then write a comment following their discussion. He told the class that they would have this three-weekly discussion and they kept a rota on the wall. In the meetings with each child, he talked with them about their progress and about areas they were having difficulty with and suggested ways to help them learn better.
- He also told the class that at least every six weeks he would write more detailed feedback on how they were each doing in their exercise books and then they would take their books home. (Of course, he also looked at and marked the books at other times.)
- When he had given the class a worksheet, he would discuss the correct answers with them all and give the children time to change their answers to show that they fully understood. The aim was that all the children would eventually understand everything.

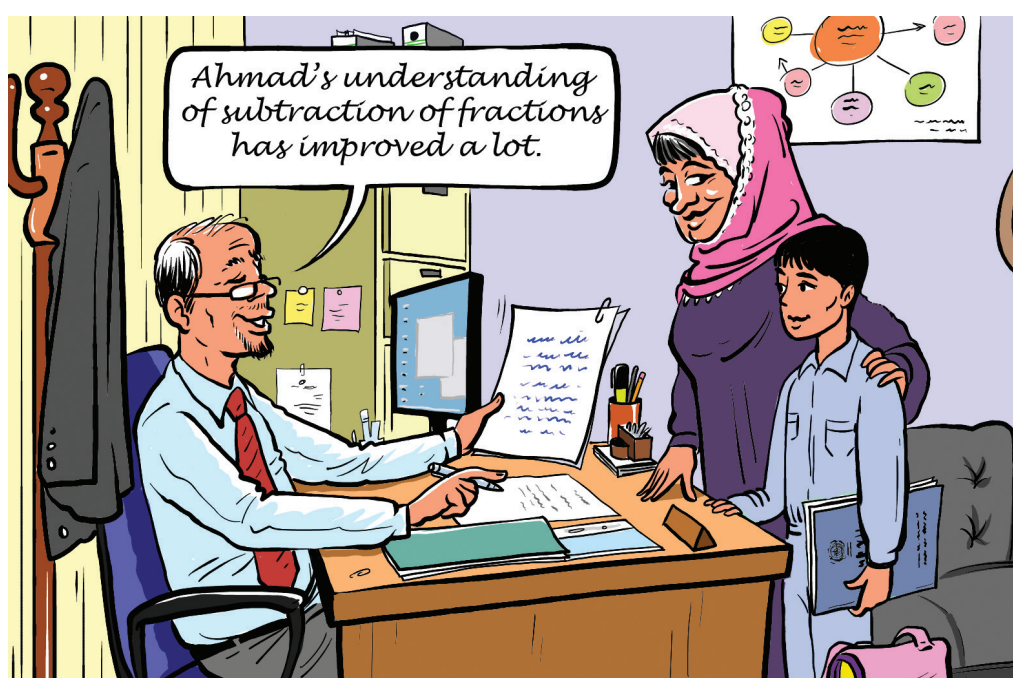


Figure 37: It is important to involve students and their parents in discussions about their progress.





## Comment

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*There is strong evidence that making comments on children's work is really significant. One study a few years ago discovered that the children in classes where the teacher gave comments rather than just marks made better progress. So Omar was going in the right direction! Feedback only in terms of marks or grades is unlikely to improve learning but comments (written and oral) do. But the comment is best when it is more than just 'Well done' or a similar short phrase.*

### How to give feedback to children

Remember always that your comments should provide a prompt to help the child to move forward. A question, therefore, can be more effective at helping understanding than just giving the child the information. You might need two or three questions to elicit the understanding, but this develops a very powerful approach to teaching and learning. For example, you could say to a child, 'This is good so far, but have you thought about which factors affect your breathing rate? You could write in your ideas about this at the end.'

Some teachers have developed sets of cards that they use when giving feedback. The cards might have some half-completed statements on, such as:

- Have you thought about ...
- Discuss this with your partner ...
- Look in your book on page ...

The teacher moves quickly around the class giving out cards to some and filling in the spaces appropriately. For example, 'Have you thought about comparing the right- and left-hand side of the table?' Or 'Look in your book on page 63. Look especially at the diagram.' The children often like the idea of getting a card, and it's a quick way for the teacher to establish a dialogue with a larger number of children.

In giving feedback, it is wise to use a variety of techniques and strategies to keep children interested and to help you engage with as many children as you can. Keeping track of the feedback you give is useful – this will ensure that no child is left out and it helps you to track all the children's progress. Try the next activity, which asks you to record your feedback activity in a lesson or two.

## Activity 22

Draw up a chart with the names of the children in a class you teach down one side and lessons you will be teaching them in the coming one or two weeks along the other side.



Every time you have an individual 'feedback' discussion with a child put a tick against their name in the appropriate box. If the feedback was extended, that is, you had to spend more time than normal, or go back to the same child a number of times, put an asterisk against the tick. See the example below:

Name	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Total
Lina	✓		✓	✓*	3
Eman	✓	✓	✓*	✓	4
Lana		✓			1
Mariam					0

Table 7: An example of a "feedback" discussion record

At the end of the period of time you have selected, reflect on the following questions:

- What percentage of the class were you able to speak to?
- Did the percentage you achieved ensure that you would be able to give feedback to every child within a two- or three-week period?
- Did you manage to speak to those who might be finding the topic difficult?
- Did you manage to give feedback to those finding the topic fairly easy? Were you able to give them a supplementary, more demanding, task?
- What types of feedback did you give?
- Was it helpful to the children? How do you know this? For example, did they finish the work without further help? Did they write a clear explanation that showed they understood the ideas?

Make a note of your thoughts in your course notebook.



Figure 38: Reflection is an important part of making sense of what we have observed.

## Comment



*Using a language of assessment with children is not a mechanical process where you just say 'Well done' or 'This needs more work'. It involves more thought about how to help the child in his/her learning, because this will make a difference to his/her achievement. Many teachers do this as a matter of course. But if you want to improve and develop your practice (even the most experienced among us need to do that!) then you need to think explicitly about what you are doing and saying to children.*

As we said, there is now quite substantial research evidence that underpins how important good-quality feedback is. Stop and reflect on the following important findings that provide guidance on ways to enhance your skills in providing feedback.

- Written and oral feedback can be equally effective if each is given in some depth.
- Giving praise is valuable, but praise that is specific to the task and mentions attributes of the task that have been well done is more effective than general praise.
- Feedback is more effective if it is focused on the task rather than the general personality of the child.

- Feedback on behaviour and presentation may be necessary, but it should be alongside consistent feedback on tasks.
- Feedback should always indicate a future action; what the child should do next, given the discussion you have had with them.
- Mistakes should be seen as important learning opportunities.
- Whole-class feedback can be helpful. For example, 'You have all done very well this lesson. I think everyone now understands.'
- The child needs to see the feedback as useful, and so how you give the feedback must be sensitive to the child as a learner and person.

The above list does not suggest that all forms of feedback should be used in every lesson or even every week. But it does say that for children to learn effectively they do need regular feedback. This unit has suggested how teachers can use a variety of forms of feedback and has suggested ways of monitoring this.



Figure 39: Whole class feedback is an important way of reaching all students and providing guidance to students about their learning.

## Summary

This unit has helped you develop your understanding of current practices in assessing learning but with regard to assessment for learning in particular. Key to assessing learning is being able to seek out evidence of every child's learning and also being clear about what it is you are expecting the children to learn so you can assess their progress against these criteria or learning outcomes.



There are various strategies that you can use to help children learn, including different ways of providing feedback and ways of finding out what children know. Questioning is an important part of this process and the next double unit will explore this further.

Providing feedback so that children understand their strengths and weaknesses in the work they are doing is important. Children who appear to have easily understood a topic need extension activities to help them think in more depth about the ideas involved. Children who are struggling to learn something will need extra help from the teacher or their peers, such as by having different activities broken down into smaller units or talking through ideas in different ways, to help them build up their understanding. Talking to children in this way helps them develop the skills and understanding necessary for learning; most importantly it helps them to work more autonomously and take charge of their own learning.

Some of you will have your own children or younger brothers or sisters. You all also have memories of being a child in school. You know just how significant it can be when the teacher speaks to an individual child. Every child needs that strong feeling that someone cares about and understands him/her as a learner. The new approaches to active learning and assessment for learning build therefore not only on how they develop children's intellectual capacity, but also their emotional strength.



## Module 3 Units 10–11

# Questioning techniques to promote formative assessment practice for student learning

### Introduction

This double unit has a focus on questioning because this is one of the most important skills that teachers learn and develop. Questioning is a valuable tool in helping children learn and make sense of their world and it encourages deeper thinking and creativity.

Unit 9 discussed formative assessment and the way this can improve teaching effectiveness and learning progress, and it looked at the importance of feedback in helping learners learn. Questioning is at the heart of the day-to-day formative assessment process. A teacher who does not question is like someone trying to find their way with their eyes covered! The more teachers ask questions, the more they become aware of individual, group and class learning, understanding and progress. As was discussed in an earlier module, few – if any – of us learn in a totally linear way. Sometimes it is easy for us to miss important links and sometimes we find it difficult to make sense of what is being said or done. The teacher needs to be aware of the difficulties the learners may have and to plan more precisely to help them. It is the teacher who helps a child ‘scaffold’ their learning. Questions are at the heart of this process.

### Teacher development outcomes

On completing this double unit, you will have developed your:

- knowledge and understanding of and ability to use a variety of different types of questions to aid learning;
- appreciation and understanding of the significance of ‘higher order’ questions and you will be able to use them effectively in developing children’s thinking and learning;
- ability to integrate question preparation, including the use of questioning ‘mind maps’ into your lesson-planning strategies.

## Importance of questioning in teaching and learning

There is a range of different types of questions that you as a teacher can use to help your pupils think more carefully about what they are trying to learn. For example, the rapid questions and answers of a teacher-led 'brainstorming' session can be used to arouse interest, provide information to the teacher about what the children already know or gather information about what a group has learnt.

This unit will look at some of the ways to classify questions and how they can impact on teaching and learning in the classroom. The first activity asks you to reflect quickly on reasons to use questioning to start you thinking about its crucial place in the teaching and learning cycle.

### Activity 23

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Look at the list below, which describes ten reasons for asking questions. Which do you think are most directly related to monitoring progress?

1. To arouse interest and curiosity about a topic.
2. To focus attention on a particular issue or concept.
3. To develop an active approach to learning.
4. To stimulate children to ask questions of themselves and others.
5. To structure a task in such a way that learning will be maximised.
6. To identify specific difficulties that prevent children from learning.
7. To communicate to the class that they are expected to be involved in the lesson.
8. To provide an opportunity for children to assimilate and reflect upon information.
9. To help the development of thinking skills.
10. To express a genuine interest in the ideas and feelings of children.

It is clear that numbers 2, 5, 6 and 8 are clearly related to learning progress and the other points are all related to helping children learn and to understand better how they learn. But all the ways of questioning in this list have a place in the teacher's repertoire of questioning skills. The important thing is to be aware of which types of question need to be frequently used in order to assess learning and progress, and which types of question help learning.

Now read Case Study 22, in which Naji encourages his pupils to raise their own questions.

## Case study 22

Naji works in Jarash Camp School in the Jordan Field.



Naji was beginning a new topic on plants and he decided to use the children's own questions as a starting point for teaching the topic. He understood that good questioning was essential but he liked the idea of the children raising the questions themselves. So, at the beginning of the first lesson, he put some pictures of plants on the class wall. He told the class they were going to learn about plants, how they grow and how important they are. He said he wanted the children to work in pairs and brainstorm as many questions as they could think of to ask about plants. Then he had a whole-class session where each pair contributed a question. He wrote many of the questions on the board, sometimes helping the children to refine their questions as he did it. Look at the list that they produced:

1. *Why are plants usually green?*
2. *Why are some plants poisonous?*
3. *Why do some plants grow in the desert, but not others?*
4. *Do plants grow on the moon?*
5. *Why do plants need water?*
6. *Why do we call some plants weeds?*
7. *How many plants are there in the world?*
8. *Is seaweed a plant?*
9. *Do all plants need water?*
10. *What makes some plants better to eat than others?*
11. *What is the difference between a plant and a herb?*
12. *Is it true that oil comes from plants?*
13. *Can you eat flowers?*



Figure 40: Encouraging students to question engages them in their learning and helps develop higher order thinking.



Naji discussed with the children how they could create categories of questions. He asked them to think of some categories and, working as a class, this is what they came up with on the blackboard.

<i>The structure of plants</i>	<i>How plants grow</i>	<i>The differences between plants and other forms of life</i>	<i>Different types of plants</i>	<i>What plants are used for</i>
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Table 8: Help children identify ways of categorising.

Naji could now use this categorisation table to help him plan the future lessons on plants. He gave each group one of the five areas in the table to investigate and gave them some resources to help them. For example, he gave the group who were to investigate the structure of plants some samples of plants and reference books. These children produced a diagram of all the main structure and features of a plant and shared it with the whole class and it was displayed in the classroom during the topic. For the other questions, the children collected plants, tried to grow plants or used reference material.

### Comment



*Naji's approach stimulated the children's interest and helped them to think more deeply about the ideas they were investigating. From the start they were all actively engaged and Naji was also able to gain insight into their prior knowledge. He then planned his lessons to build on their prior knowledge through the use of focused questions. Naji provided resources to help them find answers to their questions and put them in groups so that they were able to share ideas and discuss problems together. This approach helped the children to take much more responsibility for their own learning and construct their understanding together. Questioning children also enables pupils to hear explanations given by their classmates; this process helps build understanding as the child compares other children's explanations with their own understanding.*

The next activity is a similar kind of task.

### Activity 24



Try this activity out with one of your classes. Find four or five objects that are relevant to the topic you are teaching and that could be put around the classroom, such as pictures, maps or artefacts (for example if you were teaching a topic on light you might bring in a torch).

Ask the children to work in pairs. If there is enough room in the classroom you might ask the class to leave their seats and come and look at the objects. If there is not much space, you might need to do it in sequence with only six or seven pairs looking at a time. When the children return to their seats, ask them to write a question for each object. You then proceed as Naji did in Case Study 22, by writing some of the children's questions on the board and working with them to refine the questions and classify them.

In a class discussion, get the children to answer the questions that can be answered straight away. Then discuss with them how they could answer the other questions. List their ideas, and then tell them they will try to answer some of these questions in the next lesson. Ask them to bring in any books they may have that might help them answer some of the questions.

Use your course notebook to write down how the lesson went. Concentrate on how the children were involved, the kinds of questions they raised, and the learning the activity produced. Think also how you could do this activity again and make it more effective. In your course notebook plan how you will answer some of the other questions with your class in the next lesson.

### **Why is asking questions important?**

Asking questions is a stimulating and interesting way to engage children in new topics and assist their learning. Some recent research asked teachers who were new to teaching why questions were important. The main reason given was:

*“To find out about children’s knowledge and understanding.”*

*(Brown, G. A. & Wragg, E. C., 1993, Questioning, London: Routledge)*

But research in many classrooms shows that teachers can easily forget this! One study analysed more than a thousand questions heard in a series of Grade 1–6 classes in one small town. The researchers first looked at whom the questions were addressed to. They found that 12% were addressed to groups of pupils, 22% to the whole class and 66% to individuals. This could be construed as encouraging, as the teachers were providing an individual focus.

The researchers, however, then looked at the sort of questions being asked. They found that:

- 57% were managerial, that is to do with equipment or the organisation of the classroom, such as ‘Have all the pencils been collected?’
- 35% were about facts, information or data, such as ‘How many million people live in Cairo?’

- 8% were what are termed 'higher order' questions, which make children think hard about an issue, such as 'How could we test out your idea that plants need water to grow?'

In this research project, they found that teachers were asking lots of questions, but only a small number of them could be seen to be supporting a more active engagement by children in their own learning.

The next activity looks at a transcript of a lesson and asks you to do some analysis of the types of questions one teacher asked in a session. This will help you develop your understanding and ability to recognise different kinds of questions.

## Activity 25



Read the following transcript and, in your course notebook, make a response to the following questions and issues:

- Can you find an example of a managerial question?
- Are there examples of questions that are really commands?
- Which is the first key question about the content of the lesson?
- Why do you think the teacher asked the key question?
- In what direction does the teacher then take the lesson?
- Do you think the teaching and learning sequence was appropriate?

### Transcript

*T: Right, can you all sit down now? Can I have you all looking this way? Can you remember that last month we did some work on the topic 'Spring'? Please put your pens down. Today we are going to extend that topic. I want you to listen to some music. You need to concentrate very hard so it would be a good idea to close your eyes whilst the music is playing. I want you to think about the ideas and images that the music brings into your minds. Images, remember, are like pictures in your head. But before we listen to the music can we predict what some music about Spring would be like? Think hard. Omar, what do you think?*

*Omar: Bouncy.*

*T: Right, bouncy music. Can we think of other words?*

*Omar: Fast.*

*T: Interesting – bouncy and fast. Why did you put these two words together?*



Figure 41: Use different stimuli to teach the content, for example music can help to cater for different learning styles.

Omar: I was thinking of newborn lambs.

T: Right, lambs bouncing around, springy, yes. When we think of Spring as a season, what comes first into your minds?

Ali: Flowers.

T: Flowers, good.

Ahmad: Sun.

Nabeel: Animals.

T: Animals, what sort of animals?

Nabeel: Sheep, birds in the air.

Sami: New animals.

T: Right, newborn baby animals. Can you think of other words?

Bassam: Joy.

T: Right, now I'm going to play the music. Listen carefully. Remember it might be a good idea to close your eyes. At the beginning of the music I want you to think of the beginning of Spring. There is new life. Think perhaps of the sound of flutes. While the music is playing I want you to think about all the ideas, images, pictures that

*the music brings into your mind. I'm going to give each pair a large piece of paper. When the music stops I want you to write down what came into your mind when you heard the music. Can you think about all the images that this music on spring conjures up? Right, now I'm starting the music. If you want to close your eyes, close them now...*

Make a note of your responses to the questions in your course notebook. We will be discussing these in one of the early course support meetings.

### Comment



*Hopefully this exercise has helped you identify the different types of questions that teachers use in the classroom and, as you have analysed this lesson, you may have noticed the number of managerial questions and statements that the teacher has used.*

This will help you to carry out the next activity, which asks you to find out about what kinds of questions you use in your classroom. It asks you to reflect on the balance between those that are organisational/managerial and those that encourage thinking. Do this activity with a colleague and share your experiences after watching each other teach.

### Activity 26



In this activity you will need a colleague to come and observe part or all of a lesson. Give your colleague a chart like the one below. Make sure the colleague is familiar with the three types of questions and can recognise them easily. Next ask him/her to keep a tally of the type of questions you ask.

Managerial questions	Information questions	Higher-order questions

*Table 9: A record of the types of questions the teacher asks*

At the end of the lesson, discuss with your colleague the proportion of questions that fell under each category. Are you happy about the distribution? Did you have sufficient higher-order questions? If you think the balance needs to be changed, what do you think you can do to improve it? What was your colleague's impression?

Next, do the same activity, but change roles so that you observe the colleague's lesson. Again, share your thoughts about what happened and discuss how you each use questioning in your classroom teaching.

## Closed and open questions

Another common way to distinguish between the types of questions teachers use in the classroom is in terms of *closed questions and open questions*.

*Closed questions* have a fixed limit. They are often answered with a 'yes' or 'no', or with a simple statement of fact. Closed questions are used to direct the conversation. They get specific information or confirm facts, and generally have only one answer. An example of a closed question would be: 'How many bottles are on the shelf?'

*Open questions* encourage a variety of responses. An example would be: 'Look at this photograph of oil tankers. Why do you think some are smaller than others in the picture?' This prompts children to think more deeply about the concept or issue raised in the question and to suggest answers. Well-chosen open-ended questions are similar to higher-order questions, as they encourage thinking.

Another example would be: 'Look at these two pictures of workers cultivating fields. One was taken in southern India, the other in Australia. What are the main differences between the pictures?' This gives the children opportunity to explore many different ideas and themes around the two pictures and also gives the teacher insight into the kinds of connections the children have made between the pictures. This will help the teacher to move the lesson on to the next stage more precisely.

Researchers agree that open questions are likely to create a stronger learning situation than closed questions as they allow children to explore their ideas more and listen to alternative views and ideas. As a teacher, you need to achieve a balance between closed and open questions. Some studies of classrooms show that teachers find it easier to ask closed questions, but asking a majority of open questions would be better because these questions stimulate thinking and creativity.

## Conceptual, empirical and value questions

Another way of classifying questions is in terms of *conceptual questions, empirical questions and value questions*.

*Conceptual questions* can be initiated by classification-type activities like the one on plants in **Case Study 22**. This activity could also be used in the classification of animals, where a teacher could ask children to assemble their own taxonomy, that is, to sort the animals into different groups themselves and then to look, for example, at a textbook classification. The teacher can then ask questions related to the children's classification, for example:

- Do you think all animals that lay eggs should be in one group?

- Can you explain why you have put these animals together?
- What do you call animals with and without bones?

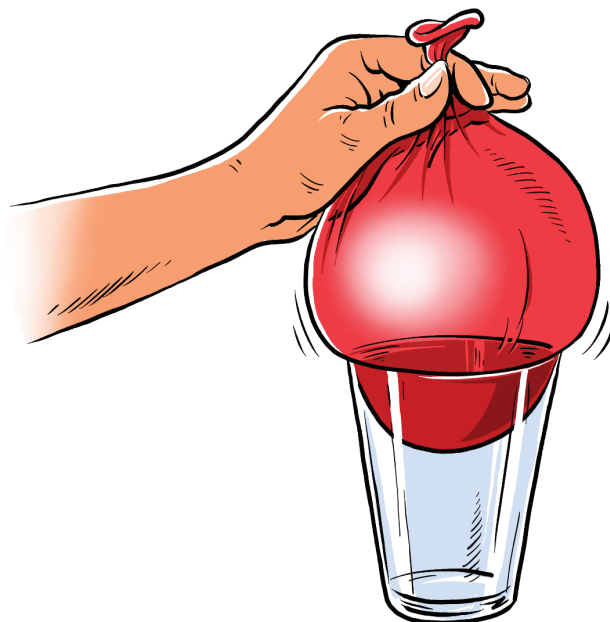
Here you are beginning to develop the children's conceptual ideas (such as the distinction between vertebrates and invertebrates). By reflecting on their own classification in relation to these conceptual ideas the children begin to construct an understanding of the world that is much stronger than if they were just told about how to classify animals and how taxonomies work.

Then there are *empirical questions*, which involve observation, recall of facts and possibly experimentation. Read the following two transcripts. The first transcript is from a lesson about forces; the second is about how animals keep warm. The researchers noticed how the teachers structured the empirical questions and how the questions helped children to observe, speculate and connect one fact with another.

Read carefully for the ways in which the teacher extends some of the questions.

### **Transcript 1**

*Teacher: When I blow up the balloon, which is inside a plastic cup, Saif said that the air presses against the side of the cup and lifts the cup up with the balloon. So what do you think is going to happen if I let go of the cup?*



*Figure 42: Think about how you can use practical activities to teach key concepts to students.*

Child: It's going to stay.

T: It's going to stay with the balloon. What if I start to let go of the balloon?

C: It will fall off.

C: All the air will start coming out and friction on the side of the cup will start letting go, so then the friction will stop and then it will fall off.

T: Good, we've got another word here – friction – say it again really loud now so everyone can hear.

C: Well, when the air goes out, the friction will kind of come off the cup and then the friction will let go of the cup and then the cup will drop off.

T: Right! So Omar is saying is saying that there is some friction holding the balloon and the cup and that when the air comes out of the balloon the cup is going to drop off – does anyone else think the cup is going to drop off? Who's not sure? So if you let go of it – the cup drops to the floor – right, OK, so you've got some cups in front of you and you've got four balloons so you can try it. Now, what have you got to be careful not to do during the experiment?

C: Don't let the air out!

T: Don't let the air out, keep it in, right. Now let's have a go in our groups and see what happens and think how you can explain what is happening. You might want to try it several times and see if it is the same each time.

### **Transcript 2**

T: Yes, if we think about stables and barns, these are places that animals sometimes shelter in. Why do you think they do not always live outside?

C: Because there might be a strong wind and a dust storm.

T: Good, when is there most likely to be a strong wind and dust storm?

C: In winter.

T: Is it only in winter?

C: No, strong winds can happen anytime.

T: Are there other times when animals might need shelter?

C: At night.

T: Good, why at night?

(Modified from Brown, G. A. & Wragg, E. C., 1993, *Questioning*, London: Routledge)



Let's now look at *value questions*, which relate to the values you may be exploring with the children. This might occur when you are discussing topics such as human rights or conservation of the environment. For example, 'How could climate change affect children's human rights?' could provoke much discussion about how access to clean water may be jeopardised by flash floods and drought caused by global warming. Any part of the curriculum where rights or injustices are being discussed and where sometimes there will be different opinions, fall into the values category. Such questions allow children to formulate and think about their own opinions and understandings about a topic.

The different ways of classifying questions discussed in this unit show how certain types of questions foster learning more than others. All the types of questions are useful but questions that make children think (rather than questions that just require children to use their memory) should feature significantly in a teacher's questioning strategies. On a day-to-day basis you do not need to have the classification of questions in the forefront of your mind! But you do need to ensure that you develop strong questioning techniques that extend your use of the more challenging types of questions in order to help children progress more.

### Activity 27



Below is a lesson plan that involves lots of questioning (with some questions prepared by the teacher in advance) and a linked assessment activity. Read through it carefully. As you read, keep track of the different questions the teacher will use.

#### *Lesson Plan A*

<i>Grade 4</i>	<i>Subject: Science</i>
<i>Topic: Energy - Using heat in the home</i>	<i>Resources: One worksheet</i>

Table 10: Sample of a lesson plan.

#### *Learning Objectives*

*By the end of this session children will have developed their:*

- *knowledge and understanding about heat being a form of energy and how it changes into other forms of energy such as light;*
- *ability to identify how heat is used in the home;*
- *knowledge and understanding of safety issues and practices about heat in the home.*

### *Subject knowledge needed by teacher*

*Energy is needed to make things work and we all need energy to make our bodies function. Energy is found in many forms and can be changed or transferred from one form to another. Energy is used to make things work. Heat is one form of energy but there are others, such as electricity, light and sound. Heat energy can be used for cooking and to keep us warm. Heat can be produced by burning fuels or by heating metals to give out heat. Most of our heat energy comes from gas, electricity or solid fuel. When using heat in the home it requires people to be sensible and safe whatever different fuels and appliances are involved.*

*1. Introduction: Planned discussion with class, based around a series of questions:*

- When and how do we use heat energy at home?*
- Where do we use heat?*
- Why do we use heat?*
- What would life be like if we did not have any heat available?*
- What sources of heat can be used in cooking?*
- Electricity is a form of energy that provides heat for cooking; what other things work on the energy from electricity? What forms of energy can electricity energy be changed into?*
- What happens when you touch something that is very hot?*

*2. Mind mapping children's ideas:*

*Using these questions, I will construct a simple mind map of the children's ideas on the blackboard as they talk. I will try to link their ideas on the mind map. I will try to develop the following ideas through discussion around the questions on heat.*

- Heat is an important form of energy.*
- Heat is a form of energy that we acquire from different sources.*
- Energy is an important part of our lives and always has been.*
- Remind children of the dangers of hot things.*

*3. Appliances in the home that use heat:*

*I will give out a collection of pictures of objects from a house that use electricity or other sources of energy to make them work. I will put the children into groups and ask them to sort the pictures in as many ways as possible. Then I will share the different ways of*

*sorting and list main suggestions on the board. I will pick out those ideas that are related to how the household objects are made to work or fuelled. I will then ask the groups to think about what fuel each of the objects uses to make it work. Then I will list their answers against each object on the blackboard. There may be conflicting answers but put these up and then at the end discuss what everyone thinks is the most likely answer.*

#### *4. Conclusion:*

*As a whole class, we will discuss through question and answer their ideas about what they have found out, for example:*

- *What would we have to do without if we did not have sources of heat energy?*
- *How many sources of heat energy have we found?*
- *How did people cook before there was gas and electricity?*
- *What is the most important source of heat energy in your home?*

#### *5. Assessment:*

*I will now consider what the children have learnt about energy from this lesson. How will I know this?*

You could use this lesson plan with your class or plan to teach another lesson in a similar way that uses questioning. Write out the plan in your course notebook and try to identify what types of questions you might use at different stages of the lesson. You may want to prepare some of these in advance as this will help you think about how to structure different types of questions. The more you can change and structure questions as you are teaching, the more you can modify and adapt your teaching to meet the children's needs. This involves listening to what the children say and thinking of the overall aims of the lesson, including the knowledge, skills and attitudes you might be trying to develop, and then asking different types of questions to help stimulate children's thinking and development with regard to your learning intentions.

Teach the lesson using this questioning approach as soon as possible. Afterwards, write an evaluation under your lesson plan using the two headings below:

- What went well in the lesson?
- What you would change the next time you taught this lesson?

It is important to reflect how well your questioning strategies and techniques worked. What kinds of questions did you use? Did you use more open questions

and did this stimulate the children to think more deeply about the ideas? How much did you use more structured questioning using questions that only need simple answers? Did this help when children were struggling with ideas?

Improving questioning techniques is an ongoing process for all teachers. The next case study shows how one teacher, Nadia, tried different ways of using questions to assess learning in a way that the children enjoyed.

### Case study 23

Nadia's subject is history and she has a number of classes to teach.

Nadia had developed her own technique of finding out if everyone had really understood a topic – she holds a class quiz.

Sometimes this would be an oral quiz. She would do a rapid quiz to begin with, where factual answers were required. Then she would have one or two questions at the end of the quiz that asked the children to give their opinion and provide evidence of why they said what they did. These were questions that were more conceptual and value related. For example, when she was teaching a topic based on 'Why building castles was important in earlier centuries' to a Grade 6 class, she asked 'Why do you think castles were built in certain places?'



Figure 43: Verbal quizzes can be a quick and effective way to check student understanding.

At other times, Nadia would give a written quiz for individuals or pairs to answer at the end of a lesson. From this she would usually gain an idea as to which children had not fully understood the lesson. Then at the end of teaching the topic she would divide the class into two. One part of the class would be set an extension activity that asked them to apply what they had learnt in a new or different context, such as asking children: 'If you were to build a castle today, where would you put it and how would you defend it?' This was for the children she felt understood the topic. The other part of the class, usually much smaller, would then receive a focused 'catch up' session that presented the same ideas but in a different way, to try and help the children understand the concepts better. Nadia would go over the main points, trying to make the session as interesting as possible.

### Comment

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*Nadia was aware of how to use relevant questioning techniques to assess the children's learning at the end of her lessons and also at the end of a topic. She was then able to plan the next steps while taking account of what the children knew already. In this way she was always trying different approaches to develop her own questioning skills. Nadia also reflected regularly on how well lessons went and whether she had used appropriate questioning techniques.*

### Improving questioning techniques

We know that children learn better if the questions they are asked are demanding but within their capabilities. The more experienced teachers become, the more they can deepen these sorts of skills. The best teachers seem naturally to choose the right sort of question. But the rest of us need to practise and think about how to ask questions. Here are key points about questions to consider.

1. Questions need to be structured so that children are led towards the answer or the possibilities of the answer – rather like signposts that point to the correct destination! It is essential that the initial question has a very clear focus.
2. Questions need to be at an appropriate level of understanding for the child or class. You will need to choose language and terminology that the children understand.
3. Questions need to be directed at extending learning and distributed around the class. A lot of research shows that teachers who ask questions from the front of the class tend to direct their questions to children in the central areas. Research also shows that if teachers only respond to children putting their hands up rather than asking children at random to try to answer, this limits the number of children involved.



Figure 44: Good questioning techniques help teachers be aware of the level of understanding of the students in their class.

4. Questions need to be paused and paced. One researcher has coined the term 'wait time'. This researcher analysed 800 tape recordings of lessons and found that teachers asked between three and five questions per minute, but only allowed a second or less for the child to answer. Before the child had time to think about the question the teachers asked someone else or rephrased the question. When the researcher asked the teacher to try to extend the 'wait time' to just three seconds or more, not only after their question but also after the child's initial response, they found that the quality and length of children's answers improved significantly.

5. Questions need to prompt and probe. Prompts and probes are follow-up questions when the first answer a child provides is inadequate or inappropriate. They are perhaps the most important questions to develop and 'scaffold' children's understanding. They are very important in formatively assessing how a child is progressing. These are questions that:

- rephrase the question, maybe in simpler terms; or
- pick up some key points in the topic and lead back to the original question; or
- review the information given so far and then return to the original question.

Here are some examples of probing and prompting questions that you could use:

- Does that always apply?
- Can you give me an example of that?
- How does that fit in?

- Why do you think that is true?
- Is there another view?
- What is the idea behind that?
- Can you tell me the difference between the two?

6. Teachers need to listen carefully to children's replies to questions, as they show if a child has not understood something thoroughly. They need to be aware of the points on which their prompting and probing questions can be built.

These six points can be useful in helping you plan, and reflect on, your questions.

There has, as we have shown, been a great deal of research on questioning. As a teacher, sometimes your questioning technique can go wrong. Here is a list of common errors in questioning that one team of researchers identified:

- Asking too many questions at once.
- Asking a question and answering it yourself.
- Asking questions of only certain children (such as the ones who will know the answer).
- Asking a difficult question too early in a topic.
- Asking irrelevant questions.
- Always asking the same types of questions (such as 'closed' ones).
- Asking questions in a threatening way (such as shouting).
- Not giving children time to think.
- Not correcting wrong answers.
- Ignoring children's answers.
- Failing to build on answers.
- Asking questions that children cannot answer.

Most teachers will make some of these errors at some time! Some errors are worse than others – for example, asking questions in a threatening voice will do little to build learners' self-esteem. These common mistakes are listed just to alert you to some of the problems associated with certain questioning habits.

One of the most common challenges is ensuring that all children have a chance to participate and contribute to discussions and question and answer sessions. To do this, you need to work on developing your questioning skills and plan carefully what type of questions to use at any particular time. This will depend on what you are teaching and what you want children to achieve by the end of the lesson or topic.

## Summary

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Questioning is a teaching skill and strategy that even the most experienced teacher can improve through reflection and practice. The Greek philosopher Socrates did all his teaching by asking questions! For him, developing his skill in questioning was a lifelong process.



Questioning is crucial in allowing teachers to make judgments about whether children have understood a topic or not. Adopting a formative approach to learning gives the teacher a much clearer idea of how to build up a child's skills and knowledge. Many children will achieve the planned learning targets through class and group activities the teacher has planned for them. Others might need individual support. The teacher has to develop a fairly detailed picture of an individual's, as well as a class's, progress. He/she needs to know when interventions, such as using structured questioning to break learning into more manageable steps for individuals, are needed. Questioning to find out what children have learnt is one kind of formative assessment and provide teachers with information that they can use to plan the next steps in learning for the class and individuals as appropriate.

Good preparation for all questioning sessions is important and sharing ideas about questioning techniques with other teachers is useful. Building up and continually improving your repertoire of questioning strategies is an important part of your professional development as a teacher.



## Module 3 Unit 12

### Recording progress in learning

#### Introduction

The term 'assessment', which is the focus of this module, derives from the Latin word *assidere*, which means 'to sit beside'. This simple phrase says much about the original meaning of assessment. It suggests that assessment should be non-threatening and affirming, and a partnership between the assessor and the person being assessed that is based on mutual trust and understanding. With regard to children in Grades 1–6, the association between assessment and the process of teaching and learning can particularly be interpreted as positive rather than negative. We know that children are more likely to maintain their motivation and succeed when they can see the progress they are making. Helping children to identify the progress they have made is an important part of teaching and learning. An effective child-centred assessment approach can help learners to understand what they have achieved and what they need to do next to make progress towards their goals and qualifications. Children benefit when the school and classroom approach to recording assessment helps them to understand what is required of them and enables them to track their own progress towards achieving their goals.



*Figure 45: Positive assessment approaches are child centred and help learners to understand what they have learned and where they need support.*

For you, as a teacher, assessment should mean the effective monitoring of children's progress in a range of ways. These ways do not need to be onerous and time-consuming, but together they will build a picture of what each child can do and help you better match your teaching to his/her individual needs.

## Teacher development outcomes

By the end of this unit you will have developed your:

- understanding and skills in the explicit use of learning outcomes with children;
- understanding and skills in using a range of strategies to help children assess their own learning and progress;
- awareness of and skills in keeping and using relevant written records of children's progress.

This unit explores ways to record children's progress in learning so that both teacher and pupils understand the expectations and the progress made. Keeping evidence of the significant steps that the children in your class make will help you to build up a picture of them as learners and also understand how they learn. This is an important part of the teaching and learning cycle, as without such information it is not easy to plan the next stages of learning to ensure that they meet the learning needs of each child.

The kind of records and evidence of learning you keep will vary with different classes and different topics. This unit will discuss what these records might include, but in order to gather appropriate evidence you first need to be sure what you want your pupils to learn (the learning outcome) and to consider how you will know that the children have learnt what you intended – or perhaps even more.

To be able to do this, teachers need to have clear learning outcomes for the pupils in their classes and to plan how they will assess the progress and achievements of each child. This does not mean they have to assess each individual child separately. As a busy teacher, you will need to have a range of strategies for gathering evidence of children's progress. As we have discussed, deciding on clear learning outcomes is the starting point. The first case study and activity show how having clear outcomes will help you to gather evidence of learning more easily.



## Case study 24

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Fatima is a Grade 5 teacher of history at Yazour Prep School in Syria.

Following an in-service course about identifying clear learning outcomes and using these to assess and record learning more effectively, Fatima planned the first lesson in a series of lessons on the Roman influence in Syria. She identified that she wanted the children to learn when, how and why the Romans came to Syria, and she also wanted to develop their skills in extracting information from a range of resources.

Fatima planned to do two things to achieve these outcomes. First, she wanted to find out what the children already knew about the Romans. Second, she wanted to help them develop their knowledge and understanding of how and why the Romans came to Syria.

She started by doing a brainstorm in which the children worked in groups to record on a large sheet of paper what they already knew about the Romans. Fatima then displayed the large sheets of paper on the wall and asked each group to identify two key areas that they would like to explore further. Fatima listed these on the blackboard and then suggested a way to group their ideas together into the following five themes:

- How the Romans first came to Syria.
- What changes the Romans brought to society, housing and the way of life.
- How the Romans developed trade and industry.
- Travel and exploration.
- Why the Romans left.

Next, she began to explore with her class how the Romans came to Syria. Using a section in the textbook, some pictures she had collected and maps of Roman journeys and movement into Syria, Fatima asked the groups to look at the materials and to find out how and why the Romans arrived in Syria. She gave them half the lesson to do this and then each group reported their ideas back to the whole class. Fatima wrote the key reasons the children gave on the blackboard. Then, using a range of questions, she asked them more about their ideas and whether they all agreed on the main reasons why the Romans came to Syria. They finally agreed that the main reasons were to expand the Roman Empire, trade and military control.

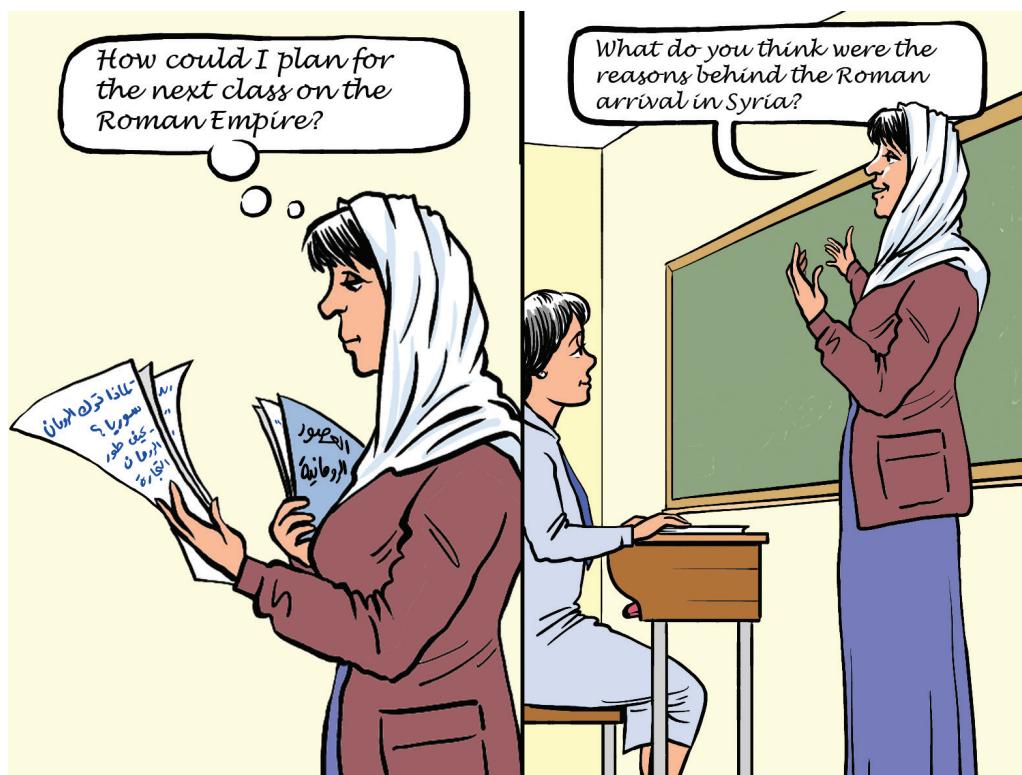


Figure 46: Finding out what students know and want to learn can be an important tool in planning and structuring lessons.

After the lesson, Fatima made a note of the areas the children had identified that they wanted to study next. She looked at their brainstorms and used this to help her plan the next lessons. If the class already understood some aspects, she would be able to spend more time on other ideas. Fatima also planned to give the brainstorms back to the groups at the end of the topic for them to add new facts and ideas that they had learnt about the Romans in Syria. It would be one way for her to find out how much they had learnt. She would also be able to compare groups to see whether they had all understood the key points.

### Comment

Having identified clear learning outcomes, Fatima found it easier to select the most effective strategies to achieve those intended outcomes. She also found out what the children already knew and introduced them to how the Romans came to Syria using a range of different resources, namely the textbook, maps and pictures, to stimulate interest. She was able to use the brainstorms as both a record of their learning and as something to display to all the pupils and others, such as staff and parents.

Knowing how to write clear effective learning outcomes takes practice, but, as Fatima's case study shows, it helps a teacher think of the best ways to plan the learning experience and to record his/her pupils' achievements.



Now look at the first activity, which asks you to practise and develop your skills at writing effective learning outcomes. As you undertake the activity, think about how you will know what the children have learnt and what might be the most efficient way to record their progress.



### Activity 28

Select one class that you are going to teach in the next few days. Then think what you will tell the children at the beginning of the class about what you want them to achieve in this lesson. Plan to do this by putting not more than three bullet points of the intended learning on the board. Here is an example:

*By the end of this lesson you will:*

- *know and understand the similarities and differences between plants and animals;*
- *know and understand how to use the index of a book to find information.*

Having identified the learning outcomes, now plan a lesson that will help the children achieve the outcomes you have set. Think about how you might ask the children to record their ideas, either alone or in a group. Think also how you will use their ideas so that both you and the children themselves can assess their own understanding and learning at the end of the lesson.

After you have taught this lesson, plan how you will discuss with the children whether they think they have achieved the objectives expected and ask them how they know this. Make notes of the children's answers.

In your course notebook, write down the outcomes and the children's answers to your questions. Also, briefly evaluate how effective the learning outcomes were in enabling the pupils to focus their attention on what you wanted them to learn. Also describe how the discussion with the children went, note down what you think they learnt and how you know this. Finally, reflect on how having clear outcomes helped you know what the children did or did not understand by the end of the lesson.

### Comment



*Your course notebook is one way of recording children's progress in learning. It is personal to you and will help you plan more effectively to meet the learning needs*

of your class and also support you in reflecting on your own practice. How could the pupils in your class be supported in a similar way to understand themselves as learners?

It is also important for teachers to have in place a system for monitoring progress that enables them to recognise children's particular strengths and identify whether any specific support is required. To do this effectively it is important to be aware of and be able to use a range of ways to gather evidence of children's progress.

Most teachers have a mark book to monitor progress, but a book full of marks does not provide enough information and insight into a child's learning to enable you to plan the most appropriate next steps. Nor does it give the child the opportunity to reflect on his/her achievements, or on how he/she learns best in different situations. An annotated mark book with notes and comments on each child would provide more evidence of progress, but again it is limited – it does not capture the child's own understanding of his/her progress and awareness of how to develop as a learner.

What is needed is a much more holistic approach, whereby profiles of children as learners and their achievements are built up over time. These profiles will then enable the teacher and pupil to talk together about that child's learning and achievement. For example, a teacher may have noticed over time how a child has made the same mistake in dividing larger numbers. The teacher then spends some time talking through with the child how they do the sums and offers guidance to help them be able to understand and do the divisions more easily. *Without the information gathered over time, the teacher would not have realised that the child was having problems.* When children constantly make mistakes and get things wrong, they lose motivation and become disaffected with the subject and sometimes with learning itself.

There is a range of ways to gather evidence. The diagram below lists some of these ways and how they can help to monitor children's achievements and understanding of themselves as learners.

The earlier units in **Module 3** looked at the ideas of teacher, peer and self-assessment as part of the teaching and learning cycle. This unit explores the kinds of records and evidence you could collect to build a profile for each child you teach. Look at the two samples of teachers' work below and think how much information could be drawn from each sample in order to plan next steps for these children.

**Sample A**

<i>Grade 6 Mathematics Semester 1</i>			
	<i>Test</i>	<i>Exercise 2</i>	<i>Homework</i>
<i>Total Mark</i>	10	10	20
<i>Abdul</i>	5	4	9
<i>Saif</i>	7	6	14
<i>Hussein</i>	9	10	17
<i>Matasun</i>	9	8	16
<i>Dirar</i>	2	3	0

Table 11

**Sample B**

<i>Grade 6 Mathematics Semester 1</i>						
	<i>Test</i>	<i>Comment</i>	<i>Exercise 2</i>	<i>Comment</i>	<i>Home-work</i>	<i>Comment</i>
<i>Total Mark</i>	10		10		20	
<i>Abdul</i>	5	<i>Understands but careless mistakes</i>	4	<i>Maybe doesn't understand properly</i>	9	<i>Needs more practice and support</i>
<i>Saif</i>	7	<i>Needs more practice</i>	6	<i>Has basic idea, needs more practice</i>	14	<i>More practice</i>
<i>Hussein</i>	9	<i>Understands completely</i>	10	<i>Excellent - needs next steps</i>	17	<i>Good try, silly calculation mistakes</i>
<i>Matasun</i>	9	<i>Very competent</i>	8	<i>Good - silly slips</i>	16	<i>Again, silly slips - needs to check work</i>
<i>Dirar</i>	2	<i>Does not understand</i>	3	<i>Confused</i>	0	<i>Couldn't do it - needed help</i>

Table 12

All that can be drawn from Sample A is an order of the children from the highest to the lowest mark for exercises they have done, but it does not give any other insights into what strengths or problems the children might have with this topic in mathematics. In Sample B, the teacher provides comments that expand on the pupils' marks by giving information about what the child can do well or where he/she needs help, guidance or more practice. As such, Sample B is much more useful in helping a teacher support each child's learning better.

Teachers cannot do this for every lesson, nor can they keep every piece of work a child produces. However, a teacher can group children who have achieved similar outcomes together and keep a note of their progress, either in a mark book or a notebook. A teacher can also select to keep those pieces of work that best reflect a child's progress, and can involve the child in the process of selecting such pieces of work. The selection might include written work, drawings, diagrams, and even

photographs. The teacher could make notes on these pieces of work – sometimes with the child – to show why they are significant indicators of progress. They can also use this opportunity to talk about the child’s progress and set new, realistic and achievable targets together.



Figure 47: Students should be empowered to determine their own progress.

The next case study describes how one teacher began to develop his record keeping to reflect children’s progress and understanding better.

### Case study 25

Matasun teaches a Grade 4 class in Ramallah Elem Coed School in Lebanon.

He had decided to develop his ways of monitoring and recording the progress of his class. He already had a mark book where he kept results of any tests or marking he had done and where he wrote comments on children’s work. He did not write comments on every child every day, but gathered insights as he went around the class helping individuals and groups. Matasun always carried a little notebook in his pocket for this purpose. He had also set up individual pocket folders so that he could keep in one place samples of each child’s work to reflect significant stages in their learning.

On one particular day Matasun was teaching mathematics, the area in which he most wanted to track the progress of his class. He knew that many of the children





were not confident about mathematics and he wanted to change their perceptions of the subject, but he felt that he did not really know what they could and could not do. So he set them some mathematical problems to solve and then went around talking to the children as they worked, about what they were doing and why. He made notes as he moved around the class. Some of his notes are below:

*Saif - can identify the key facts to solve the problem but his working out of simple mathematical procedures is sometimes confused, especially when dividing numbers.*

*Housni - good basic skills, but needs support analysing what the problem is asking.*

*Abdul - able to carry out all 4 basic numerical procedures. Needs more help with understanding what the problem is asking him to do before he can solve problem.*

As Housni and Abdul had the same problem, Matasun wrote in his notebook that he would put them together with three other children he had identified who also struggled to understand what each problem was asking. He then did this and spent some time helping the whole group to interpret the wording of maths problems. By the end of the lesson, Matasun felt the group of five had made progress. He talked with them about what they thought they had learnt and he made a note in his mark book of their comments and their needs as they saw them to move on.

One week later, Matasun asked each child in his class to write a reflection on what he/she had learnt about how to solve problems in mathematics. After reading the responses he made a list of things he needed to work on with the children. He then filed the reflections into the individual pocket files he had set up for each child as evidence of the children's perceptions of their own progress. He also included samples of children's work and observations he had made on significant steps they had made. He had a sample, for example, of Abdul's working out of a complex problem that highlighted how Abdul had used a different approach to most of the other children but had managed to solve the problem just as well. Matasun annotated Abdul's work to highlight the creative way in which Abdul had solved the problem, and he planned to share it with Abdul's parents at the next parents meeting to show them how Abdul was gaining confidence and ability in mathematics.

## Comment

*Matasun started slowly with his development of individual files for pupils, or 'portfolios' as they are sometimes called, by using them for just one subject, in this case mathematics. By extending his record keeping from just registering marks and grades he was beginning to build his own understanding of the children as mathematicians. This would help him to support their learning and progress more specifically.*



If you write comments or observations about your pupils, you may find yourself writing in great detail and you may think that this is a time-consuming way to work. But as you become more used to working this way, you will find that you write less, but that each comment you write will be more succinct and meaningful. For example, in one case Matasun wrote a long step-by-step description of how a child called Bashir solved a problem on working out the cost of paint for painting a small house. As Matasun became more experienced, he realised, when he read the entry for Bashir again, that if he had watched Bashir as he went through the whole problem-solving process, he could have just written that 'Bashir was able to identify the key parts of the problem and numbers he needed to work with to solve it.' This was a much quicker entry to write, but he realised he could not have done that to start with, as he needed to develop his skills of observing and listening more carefully, as well as his skills of summarising.

As many of you teach more than one class, keeping such notes and records of children's progress is very important so that you can plan accordingly. Although you cannot comment on every child in every lesson, you can gather evidence for some children in every lesson. The next activity asks you to select a group of children and gather evidence of their progress, and it gives you an opportunity to practise writing comments.

## Activity 29

Choose ten children from your class (or a class you teach regularly) for whom you would like to gather more evidence of their understanding and skills. Make a table like the one below, fill in the names of the children you have chosen and leave plenty of space to write comments. As the week progresses, write a comment for each child. Make sure your comment relates to his/her learning and achievements in the subject you are teaching. See the example below.



<i>Name of child</i>	<i>Comment</i>
<i>Taliba</i>	<i>T can lay out addition sums correctly even for large numbers up to 1000. She can add the units and tens accurately each time but is not so confident with hundreds and thousands.</i>
<i>Sharmia</i>	<i>S needs help to set sums out. She can do the addition in each column but is not able to carry numbers over. Needs some extra practice and input to help her.</i>
<i>Abia</i>	<i>A is very confident and able. Understands the sums at all levels and can carry units and tens over easily. Ready to move onto subtraction of large numbers and then multiplication.</i>

Table 13: A list of sample comments

At the end of the week reflect on the completed table and consider what useful information you gathered about these ten children. How could you use this information to plan to help them progress in their learning? If the comments did not provide useful information, can you think why not? Do you need more practice at observing and listening to children as they work to see what they know and can do? Given the number of pupils in your class, how often could you write such comments for each child? Set yourself an achievable target number of comments per class per week until you have at least one comment for each child.

This is just a start to building up a comprehensive picture of the children as learners. The more you do this, the more you will see the benefits for your teaching. You will be able to better match your planning to learners' needs and you will have a wealth of information to share with parents or with colleagues in other subject areas. Depending on the timetable, it will be easier to do this some days than others, but as you become more expert you will see the benefits. You will come to know the children in each class better and be able to match your teaching to their needs more closely. It will help you report to parents, who will probably become more supportive of your work and work with you to help the children achieve more.

## Summary




In this unit we have looked at brainstorming, annotating children's work, building a portfolio of work and writing comments on children as they work, as ways of gathering evidence of their learning and competence. Collecting evidence of children's achievements will help you to monitor the progress of your learners and

enable you to have constructive discussions with them about where they are, both in their understanding and in their development as competent learners.

Gathering evidence of children's achievements will also help you to examine how well the lesson you planned helped the children to achieve the intended learning outcomes you set for the lesson. In Case Study 25, Matasun wanted his pupils to be able to read written problems and identify the information they needed to solve the problem and which information was not needed. He found a small group who did not understand how to do this and he gave them support. Perhaps his previous explanations were too difficult and he needed to simplify them, especially for some children. But if he had not observed and talked with these pupils, he may not have picked up the issues and been able to help those children.

Collecting evidence about their pupils' progress gives teachers insight into how effective they are at assessing learning and adapting and modifying what they do. It also gives them information that they can share with other professionals and parents about children's progress and the next steps in their learning.

One of the main arguments of this module is that you need to 'signpost' the curriculum very clearly with well-defined learning outcomes. If the signposting is good enough, it provides the criteria with which to have a discussion with each child about the curriculum journey they are taking. This is the direction that UNRWA schools are moving in. If children are more actively engaged in their own learning by receiving regular feedback on their progress and given advice on how to progress, they are more likely to improve. They are also more likely to be confident and autonomous learners in the future.

A decorative border at the top of the page features various school-related icons in a light blue color. From left to right, the icons include a ruler, a pencil, a book, a tree, a pencil sharpener, a pencil, a pencil, the letters 'ABC', and a school bag.

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