MINISTRY OF EDUCATION
Te Tāhuhu o te Mātauranga

The Quick Start Guide

for

SELF-REVIEW TOOL FOR SCHOOLS:

FOCUS ON STUDENTS ACHIEVING BELOW CURRICULUM EXPECTATIONS IN LITERACY (YEARS 1 – 8)

A tool developed *by schools for schools*
(with support/funding from the Ministry of Education)
intended to support schools' inquiry & self-review processes

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ABOUT THIS PROJECT

The Ministry of Education is working to implement government policy around setting National Standards for literacy in primary and intermediate schools. All English- and Māori-medium schools are using National Standards from 2010. National Standards aim to lift achievement in literacy (reading and writing) by being clear about what students should achieve and by when. This is intended to help students, their teachers, parents, families and whānau better understand what they need to achieve and what they should focus on next.

Information about student performance against the National Standards will not, by itself, lead to improvement in literacy achievement. In order for literacy performance data to drive improvement, it must be built into a broader inquiry cycle that considers learning needs; learning tasks and experiences; teaching approaches, tools and additional support; analysis of their impact; and use of these insights to inform improvements and then focus further inquiry. Each of these elements appears in the inquiry cycle that is already familiar to many New Zealand educators Figure 1).

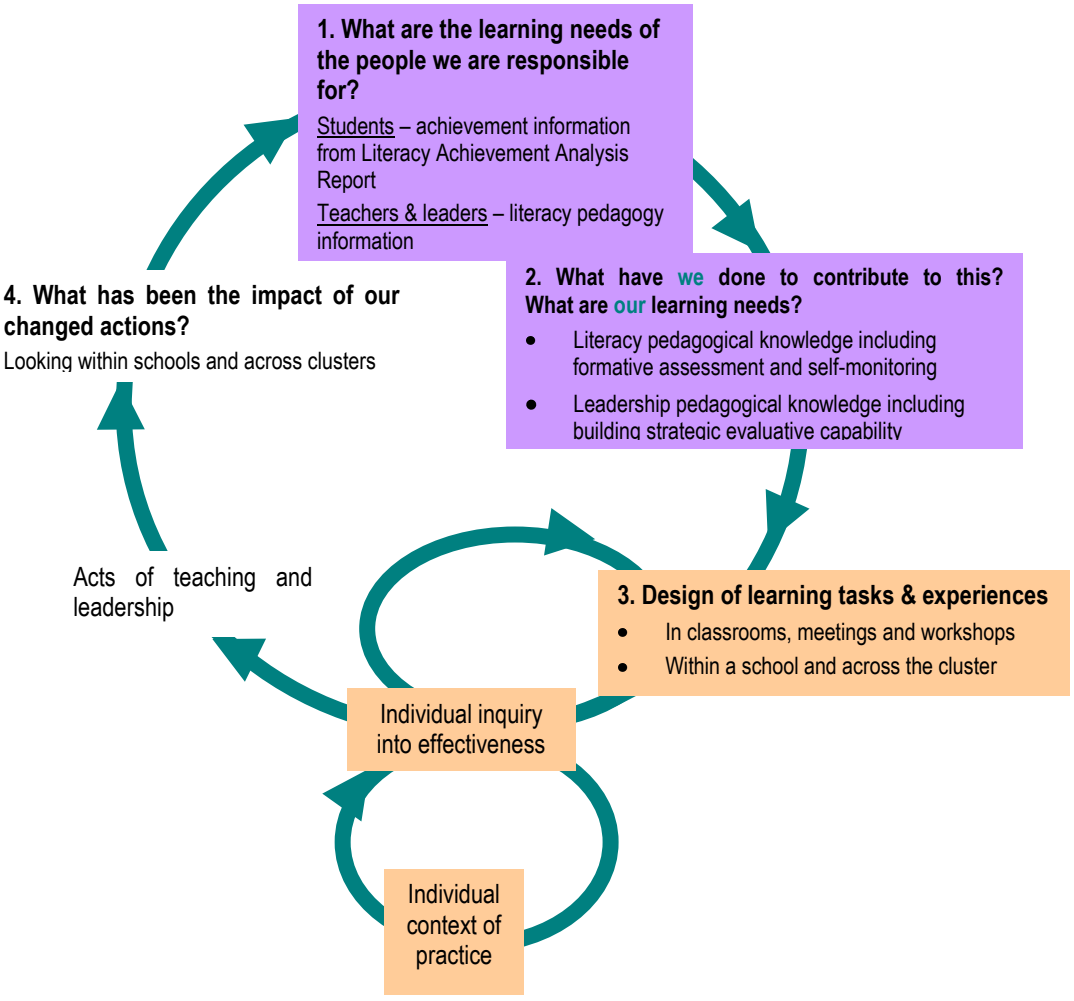


Figure 1. Adaptation of the "Teacher inquiry and knowledge-building cycle"[1]

[1] Figure 1 was adapted from the "Teacher inquiry and knowledge-building cycle" proposed in the Teacher Professional Learning and Development: Best Evidence Synthesis Iteration (TPLD BES – Timperley, Wilson, Barrar, and Fung, 2007) and presents a cycle and theory of improvement principled on developing effective literacy learning and practices that lead to improvements in teacher practice and student outcomes.

The tools developed here are designed to be used alongside the various self-review tools currently available to teachers and schools: http://nzcurriculum.tki.org.nz/National-Standards/Self-review-tool. In particular, some schools may need an intensive inquiry process focusing specifically on students achieving below curriculum expectations in literacy and how well it meets their needs; these tools will help facilitate that inquiry.

Who was involved?

Literacy leaders from three schools in the Auckland region worked with literacy facilitators, evaluation specialists and literacy experts from the Ministry of Education to develop a set of user-friendly tools for evaluative inquiry, conduct some initial field testing and consider what else would need to sit around the tools to make them maximally useful and practical for schools.

What was developed?

> *In this exploratory study, a set of 10 user-friendly evaluation rubrics was developed to support the inquiry cycle used by schools, with a specific focus on how effectively their literacy approaches and strategies meet the needs of students achieving below curriculum expectations in literacy.*

The 10 rubrics will help English-medium schools reflect on and use a variety of information sources to answer **for themselves** the following evaluative inquiry questions:

1. How well do we assess and understand the nature and extent of the strengths and needs of our students achieving below curriculum expectations in literacy? *And, the strengths and needs of our teachers & staff when supporting this group of students?*
2. How well do we know about and access appropriate literacy-related resources and resource people?
3. How well have we developed and how well do we continue to support a positive literacy culture in our school (incl. policies, practices, attitudes, values)?
4. How effectively and appropriately do we consult with and involve parents/whānau of students achieving below curriculum expectations in literacy?
5. How well do we make decisions about which students achieving below curriculum expectations in literacy should be served/prioritised? Based on what?
6. How well do we choose the most educationally powerful and cost-effective mix of interventions for the students achieving below curriculum expectations in literacy we serve?
7. How effectively do we implement these interventions (including case management of students)?
8. When teaching to meet the needs of students achieving below curriculum expectations in literacy, how effective are those classroom teaching practices?
9. How well do our students achieving below curriculum expectations in literacy make accelerated progress thanks to our efforts?

10. How well do we evaluate each literacy approach or intervention (both in-class and out-of-class initiatives) and use this information to
    a. improve/tweak approaches and interventions or their implementation and
    b. inform choices about selection, combining and targeting of approaches and interventions?

Each of the ten inquiry questions listed above represents an important component in the mix that schools need in order to accelerate the progress of their students achieving below curriculum expectations in literacy. The relationships among these ten components are illustrated below Figure 2.

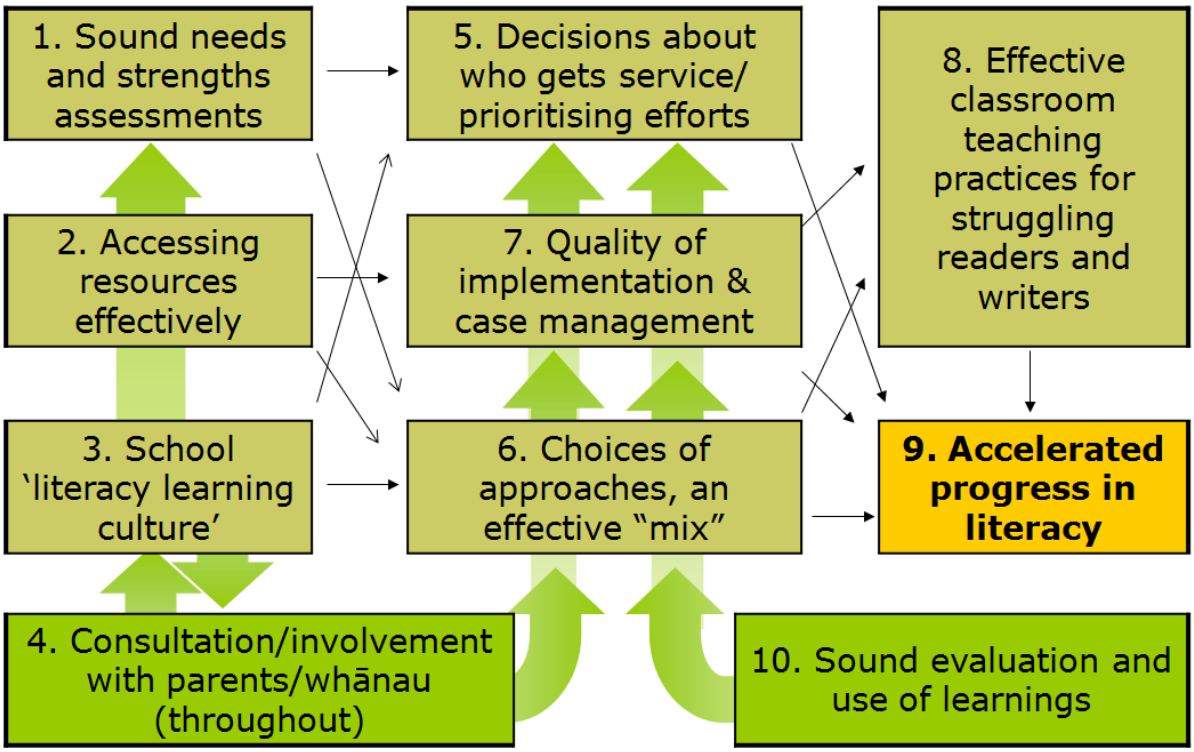


Figure 2. Model showing the relationships among the 10 components needed to support accelerated progress for students achieving below curriculum expectations in literacy[2]

PRELIMINARIES

Questions to ask yourselves first

Literacy leaders around Aotearoa work in schools that are at very different places with respect to how open and reflective they are about their outcomes, systems and practices. Some may be very familiar with reflective inquiry and evaluative thinking, while others will be still developing their inquiry culture and skill set. In some schools there may be localised (or widespread) defensiveness and resistance to genuine reflection on the adequacy of learner outcomes and the effectiveness of teaching practices.

[2] Numbering is to allow easy matching to the list of inquiry questions on p. 2 and does not indicate any particular temporal order or priority ranking.

Before starting to engage school leaders, teachers and other staff in a reflective self-review process, it is a good idea to consider the following questions first:

- How much experience has our school had in engaging in genuine inquiry and reflection on the effectiveness of our practices and the adequacy of the outcomes for our learners? Are we relatively new to this, or is it already infused in "the way we do things around here"?
- What's been our history with inquiry and self-review? What has happened in the past when difficult truths were highlighted? Did we see pockets of (or, widespread) resistance to disappointing news, or did people generally engage in constructive problem solving to try and make improvements? If there was resistance, was it from relatively influential people or not?
- What feedback have we had (e.g. from ERO, or from external providers) about our capability for self-review, inquiry, reflection and continuous improvement?
- Given the above, who would be the best three or four people to facilitate this self-review process? Is the principal willing to get directly involved in this role? Do we have senior literacy leaders on staff who are well respected and have the authority, credibility and experience to work through any resistance encountered? Can we keep this person professionally 'safe'? Would it be better to initially work with someone external to help get the ball rolling, e.g. from MOE, School Support Services, or another provider?

Our experience in piloting this self-review tool was that resistance often pops up where it's not expected. Even in schools where resistance is not anticipated, you may wish to use some of the 'tips' presented below to help maximise the chances of buy-in and a positive, constructive inquiry process.

Tips for a successful self-review and inquiry process

This tool has been designed *for schools to use for themselves* rather than being a Professional Development provider tool. Providers may suggest that schools use this tool and will be able to offer support with the review process where needed.

The experiences of the various schools involved in the trial phase of the project highlighted a couple of suggestions that helped get people constructively engaged in the inquiry and reflection process:

- Rather than begin by showing people the rubrics initially, start instead with a series of open-ended questions to get a discussion going (we have some suggestions in this starter pack). From there, gather some evidence, graph or analyse it, then bring the group back together to consider the evidence alongside the relevant rubric(s) and come to a judgement about how well the school is doing on that aspect of meeting struggling readers' and writers' needs.

- Rather than bringing all key stakeholders into one room for a discussion, talk separately to the different individuals or groups, get each of them to generate a rating and some reasoning behind their judgement, and then bring the groups together to discuss differences in their perspectives on effectiveness. [This helps ensure that conversations aren't overly influenced in the direction of the most senior or influential person participating and that different perspectives are well explored.]

Which rubric(s) should we start with?

Based on schools' experiences in the development process and pilot testing of the tool, the best place to start with the inquiry questions and rubrics is the following:

- Rubric 9: Accelerated progress in literacy for students achieving below curriculum expectations in literacy

In other words, start with the biggest and most important question each school faces in this area: How well are we accelerating our students achieving below curriculum expectations in literacy, really? This will give your school a clear picture of how it's doing overall and how urgent and serious any shortfalls might be. It's probably the most important conversation needed to get the inquiry ball rolling.

ENGAGING TEACHERS AND LEADERS IN THE INQUIRY PROCESS

Facilitating an initial reflective discussion

As we mentioned earlier (under Tips for a successful self-review and inquiry process, p. 4), starting with some open-ended discussion questions first can help get a genuine inquiry discussion started. Here are some you may wish to try (or adapt) to start exploring Rubric 9:

Preliminary discussion questions for Rubric 9:

- How many students do we have who we would describe as 'achieving below curriculum expectations in literacy'? Who are they? What do we know about them?
- What proportion of our students achieving below curriculum expectations in literacy are accelerating substantially faster[3] than the expected rate of progression? How many are accelerating fast enough to bring them up to curriculum expectations in the next year or two?
- What proportion of our students achieving below curriculum expectations in literacy do in fact catch up to expected curriculum levels during their time at our school? How do we know? What is our evidence?
- What does the accelerated progress pattern look like for boys vs. girls? For Māori and Pasifika students? For English language learners? For students with special learning needs and those considered 'transient'? Who is getting 'left behind'?
- To what extent is there a clear shared understanding across the school (and with students and their parents/whānau) about expectations for accelerated progress?

Use the following probes to stimulate and focus discussion:

- How do we know? What is our evidence? Is the evidence robust enough?
- Do we have a clear picture of what's going on? What else should we look at – or, how else could we look at it – to understand it better?
- What would the parents/ care-givers/whānau say? Have we asked them?

[3] More later on clarifying how much acceleration should be considered 'substantial' or 'educationally significant'.

- How well can students articulate their progress in reading and writing? What changes are we seeing in their confidence, self-awareness, engagement and motivation?
- To what extent are students enjoying success and reaching their potential in literacy *in ways that support and build on* the strengths and worldviews that reflect their family and cultural values and perspectives?

- What would the students say about this? Have we asked them?
- What would it look like if we were doing this really well? Are we?

Gathering and analysing evidence

Your initial discussion with key stakeholders is likely to highlight the need for some more concrete data about student progress in reading and writing. Next logic step, then, is to gather together whatever evidence you have that will help you answer the discussion questions. Examples might include:

- Results of standardised tests (such as asTTle, e-asTTle, STAR, PATs, observation surveys)
- Running records
- Overall teacher judgements in relation to the National Standards and Literacy Learning Progressions
- Feedback from literacy support staff
- Feedback from teachers, parents/whānau and students

Use data from your Student Management System (SMS) to create graphs that show the progress of your students over at least two points in time, so you can get a sense of how fast they are accelerating relative to standard peer norm progress rates.

A useful resource when bringing together student data is the excellent (and brief) **BECSI guide** entitled What kind of student achievement data do we need?[4] This covers all the basics such as exactly which variables to export from the SMS into a spreadsheet such as Excel, which data to get teachers to check for their classes and which tests are appropriate choices for which year levels.

When analysing the data, it is best to:

1. Follow the BECSI guidelines[4] for exporting data into a spreadsheet and having teachers do an initial check for errors and typos.
2. Use graphs and other visual displays for quantitative data so that your results can easily be understood, discussed by staff and compared with their observations and professional judgement. Some examples are provided in the next few pages, and Excel files with graph templates are available with this kit to allow you to create your own.
3. Identify the people on staff with skills in Excel (particularly generating graphs and writing equations that will calculate difference scores, etc) – and call on other support for building such skills among a critical mass of literacy leaders and other teachers.

[4] Available online at http://tiny.cc/becsi

4. Use at least 2-3 different sources of student achievement data (from two or more different assessment methods) so that you're not relying on just one. Graph each one, then look across the graphs and displays to understand what each is telling you.
5. Use MOE's guide for calculating effect sizes[5] to give you a gauge of the size of any shifts or accelerations, and to help with interpretation. The effect size tells you how many more (or fewer) standard deviations of progress your students experienced relative to the relevant comparison. Seek out support from MOE or suitably qualified providers to help you get this part right.
6. The Literacy Learning Progressions/NZC Reading & Writing Standards set out the expectations for progress and achievement in literacy and should guide your decision making.

Summarising student progress against NZC and the National Standards

Over the next few pages a range of examples is presented to illustrate some of the possibilities for displaying data in ways that will help answer the inquiry questions and stimulate discussion about the underlying causes of successes and disappointments. As mentioned earlier, **always use at least 2-3 complementary sources of student achievement data** – no single assessment tool tells the whole story, and teacher professional judgement is an important part of the inquiry and sense-making process.

The OTJ guidelines on Te Kete Ipurangi are important here.[6] They outline the need to combine assessment tool data with observations of student process and learning conversations with the student to arrive at an overall judgement about where achievement lies relative to the National Standards.

Figure 3. The various sources of evidence that inform overall teacher judgements (OTJs)[6]

[5] Available online at http://www.educationcounts.govt.nz/publications/schooling/36097/36098
[6] Available online at http://assessment.tki.org.nz/Overall-teacher-judgment/Making-an-overall-teacher-judgment

Filling out a Literacy Progress Grid:

The most fundamental data source will be your overall teacher judgements of progress against the New Zealand Curriculum (NZC) and National Standards (NS). A simple way to represent progress relative to curriculum expectations for each year level is using a grid such as the following (example – for Year 6).

Table 1. Sample NZC / NS progress grid for Year 6

			FIRST HALF OF SCHOOL YEAR					TOTAL # STUDENTS (tally rows)
			Were below expectation		Were at curriculum expectation		Were above curriculum expectation	
			< L2	Level 2	Level 3	Level 4	Level 5	
SECOND HALF OF SCHOOL YEAR	Currently above curriculum expectation	L5						
	Currently at curriculum expectation	L4						
		L3						
	Currently below curriculum expectation	L2						
		< 2						
TOTAL # STUDENTS (tally columns)								

NOTE: A short online video explaining how to complete and interpret this grid will be made available in the near future, at http://literacyonline.tki.org.nz/

Instructions:

1. Include only those students for whom you have literacy achievement data in the first half and the second half of the year.

2. Take the first-half data only and write in the bottom row how many students began the school at each curriculum level.

3. Next, look at your students who were below curriculum level 2 in the first half of the year (the first column, labelled "< L2"). Where were they in the second half when you reassessed their progress? Fill in the boxes in that column according to how many of those students ended the year at each level. Make sure the number agrees with the total in the bottom row.

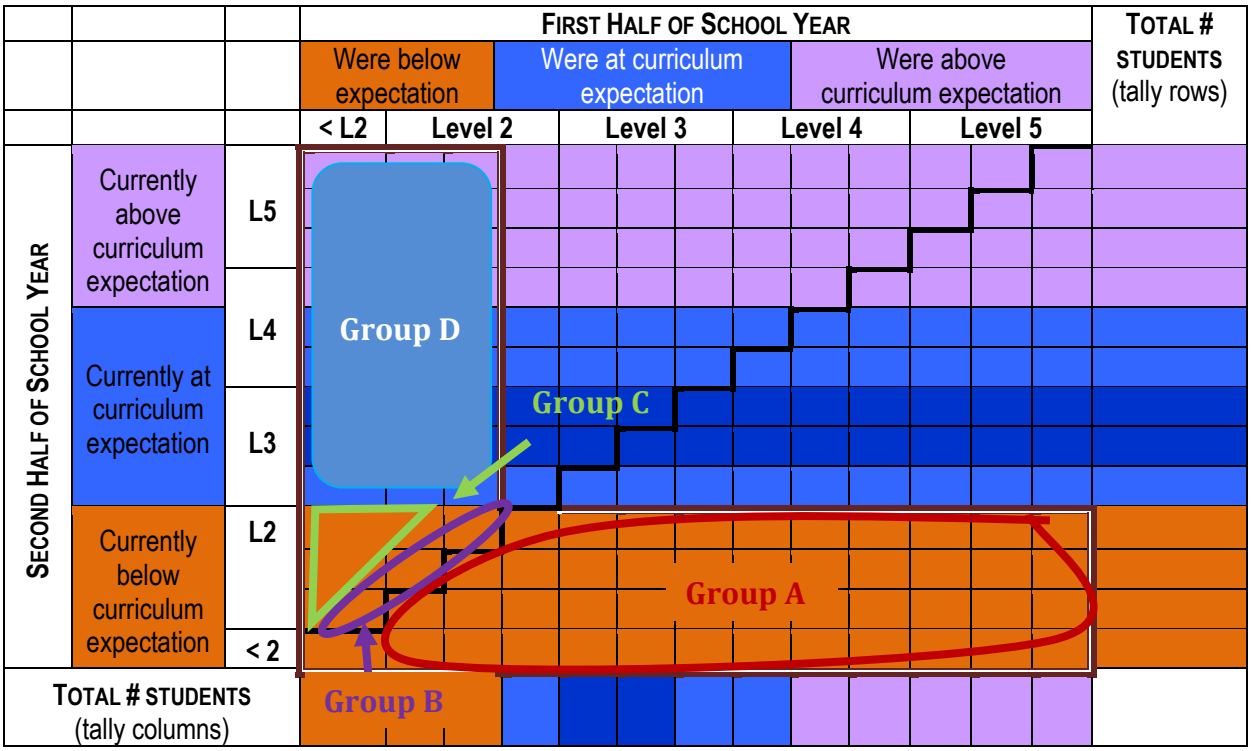
4. Repeat for each curriculum sublevel until you have entered all the data.

5. Tally your numbers in the right-hand column and check that it matches your second-half-of-year summary data.

Summarising the overall picture for your school:

1. The focus here is specifically on *students achieving below curriculum expectations in literacy*. On the progress grid, this means all the students in the red L-shaped box.
2. Add up all the numbers inside the red "L". This is your total number of students currently or previously achieving below curriculum expectations in literacy.
3. Next, we need to summarise what has happened to those students over the course of the year. Let's divide them into four groups: A, B, C and D – see below: Table 2.

Table 2. Groups of students to consider in the overall picture of Year 6 progress



Interpreting the completed Progress Grid

[Please note that the colours referred to below are those in the grid above (signifying whether students were/are at, above or below curriculum expectations), and not the Ready to Read colour wheel.]

A. Students who are "under the stairs" have *slipped further behind* curriculum expectations over the course of the year.

B. Students who are "sitting on the stairs" are making progress at about the expected rate, i.e. they are not accelerating but they are not falling further behind curriculum expectations.

C. Students who are "hovering above the stairs" *in the orange region* have made accelerated progress over the year but are still achieving below curriculum expectations. The higher they "hover above the stairs", the more educationally significant their progress.

D. Students who are "hovering above the stairs" and are *in the blue or purple regions* have made accelerated progress over the year and are now achieving at (blue) or above (purple) curriculum expectations in literacy. The higher they "hover above the stairs", the more educationally significant their progress.

4. To summarise how many students are in each group and what's happening for them in terms of their literacy progress for the year, fill out the following summary table:

Table 3. Summarising outcomes for students achieving below curriculum expectations in literacy (example)

Section of the Red "L" Shape in the Progress Grid	Number of students	= what % of those inside the red "L"	What's happened for these students
A. Number of students "under the stairs" and in the orange area of the grid	12	12 / 79 = 15%	These are the students who have fallen further behind during the year *and* are currently below curriculum expectations in literacy (may include some who were achieving at curriculum expectations earlier in the year).
B. Number of students "sitting on the stairs" in the orange area	35	35 / 79 = 44%	These are the students who started the year achieving below curriculum expectations in literacy, have made *just standard progress*, and remain just as far behind curriculum expectations as before.
C. Number of students "hovering above the stairs" but still in the orange area	24	24 / 79 = 30%	These are the students who started the year achieving below curriculum expectations in literacy, are still achieving below curriculum expectations BUT have made accelerated progress relative to expectations
D. Number of students inside the red "L", "hovering above the stairs", but who are now in the blue or purple areas	8	8 / 79 = 10%	These are the students who started the year achieving below curriculum expectations in literacy, have made accelerated progress AND are now *achieving at or above curriculum expectations in literacy*
TOTAL NUMBER INSIDE THE RED "L"	79	100%	(more or less, with rounding errors)

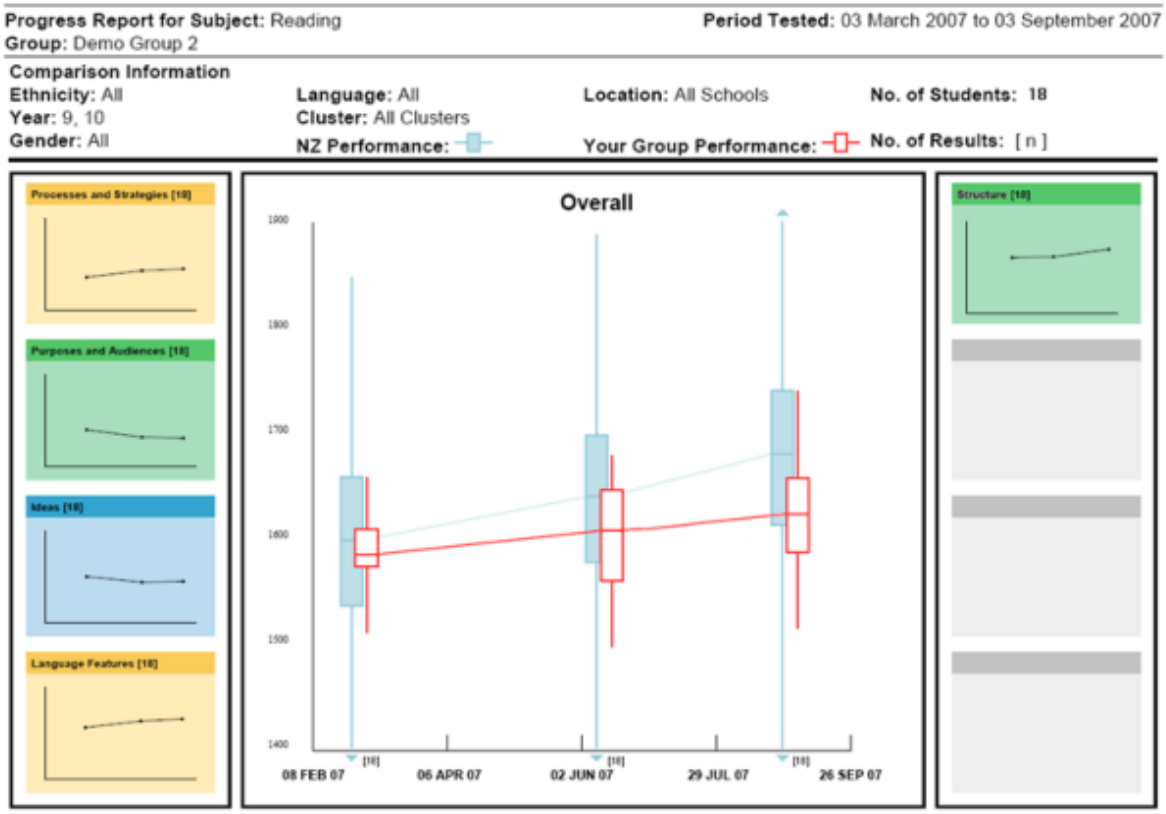
These figures (above) will be needed for answering the inquiry question of how well your school is accelerating students achieving below curriculum expectations in literacy. We get to this *Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy* on page 21.

Graphing student progress on specific assessment tools

Your school may also wish to plot student achievement in literacy on one or more specific assessment tools so that you can see some of the more fine-grained nuances in your student achievement data.

If your school uses asTTle or e-asTTle, several graphing functions already exist to allow you to track the progress of your students relative to national progress norms. Figure 4 (from the asTTle online demo) is one example.

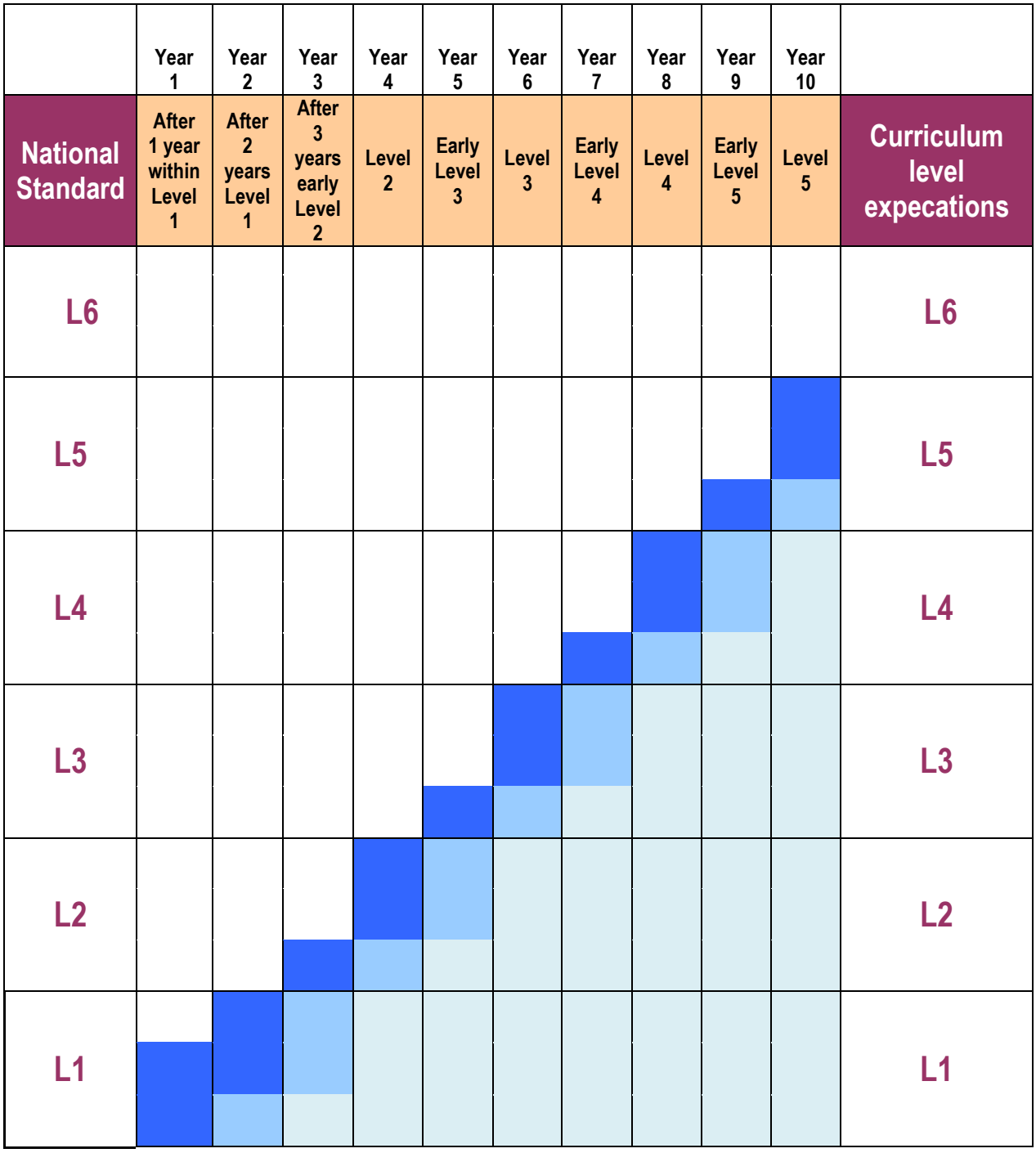
Figure 4. Sample graph of student group performance against national norms (from asTTle online demo)



You may also be able to plot the progress of specific subgroups of students, such as those who started the year below a particular score, boys, Māori, Pasifika, or English language learners.

In addition to progress against national norms (labelled NZ performance in the graph above), you may also wish to track progress relative to expected curriculum levels. Currently this capability is not built into asTTle or e-asTTle, but it is still possible to manually plot results on a graph like the one on the following page. Just print it out and plot with pen/pencil.

Blank graph for plotting e-asTTle (2010 and later) reading progress against curriculum expectations



This graph is a representation of year, and curriculum levels, in relation to the NZ Curriculum (MOE P45, 2007) consistent with the National Standards

Expectation

Below expectation. Student achievement is at the lower end of the range (NZC P 45) for the year group

Well below expectation.

When plotting student progress relative to standardised tests, it is important to take into account a statistical artefact of such data known as **regression to the mean**. The lower the Time 1 reading scores (relative to the mean for the group), the more the scores are likely to increase by Time 2. Although part of this will be due to actual reading gains, part of it will be due to a statistical artefact called regression to the mean.

REGRESSION TO THE MEAN IN A NUTSHELL

In multiple choice tests such as e-asTTle, a student's score at any one time will be due to a combination of knowledge/skill and luck:

Knowledge/skill + Luck on the day → Test score

Students who initially score below average (and below curriculum expectations) will include *relatively more students* having an unlucky day when taking the test.

When these same students retake the test at the end of the year, they are likely to score higher due to two things: (i) knowledge/skill has increased and (ii) their bad luck on the first test has not repeated itself:

Knowledge/skill increase + change in luck → Progress score

This means that:

- Score gains between tests for students who initially score low look larger than the *actual* knowledge/skill increase (because the 'bad luck' component of their low initial score does not repeat itself)
- Score gains between tests for students who initially score high look smaller than the *actual* knowledge/skill increase (because the 'good luck' component of their high initial score does not repeat itself)

This phenomenon is known as regression to the mean.

There are two major implications of regression to the mean when interpreting student progress:

1. **Repeated measures over more than two time points are needed** in order to make effective judgments about both individuals and cohorts and their progress over time when test scores alone are being interpreted. With repeated measures, the 'luck' component of test scores tends to even out and a more accurate picture emerges of true progress.

2. **Overall teacher judgements** of student progress and achievement are less susceptible to this phenomenon because teachers use multiple different sources of evidence (test scores, in-class observations, performance on homework assignments, etc). This puts teachers in a better position to determine whether a particular test score is out of alignment with other evidence, i.e. whether the student was just having a bad day, or whether a particular type of test doesn't adequately capture the student's true capabilities in reading or writing.

Some standardised assessment instruments are purely **norm-referenced tests**. In other words, they identify where students are relative to other students in New Zealand, rather than where they are relative to curriculum expectations. STAR and PAT are examples of such tests.

Although purely norm-referenced tests that provide no direct indication of curriculum level are more difficult to interpret in National Standards terms, they are still a useful source of information. See Assessment Online for more information about mapping assessment tools to National Standards.

ASSESSMENT RELATIVE TO NORMS, CRITERIA AND STANDARDS: THE KEY DISTINCTIONS IN A NUTSHELL

The following excerpt from the Education Gazette summarises the most important distinctions we need to understand here.

> Students' learning and achievement can be assessed in relation to norms, criteria or standards. All are useful for different purposes.
>
> Norm-referenced assessment shows how students are achieving compared to others of the same age group at a given point in time. Such tests usually provide results in percentiles or stanines.
>
> Criterion-referenced assessment shows what students can or can't do in relation to a list of tasks or skills. Teachers' judgments are about whether the student has achieved each skill or task. When writing for example, a student may be able to succeed at each task or skill but still not be able to write a compelling piece which meets the needs of an audience.
>
> Standards-referenced assessment shows what a student can do in relation to broad descriptions, supported by exemplars of expected achievement. The descriptions are broader than criteria. Each standard has a number of components that students need to bring together to achieve the standard. Teachers' judgments are an 'on-balance judgment' on the work as a whole.

Put another way, norm-referenced assessment tells you whether a student is scoring 'above average' or 'below average'; standards-referenced assessment tells you whether they are scoring where they *need* to be.

The National Standards are a fundamentally standards-referenced assessment approach. This makes it difficult to draw Standards-relevant conclusions based solely on norm-referenced assessment results.

As a rough guide, standard progress on norm-referenced tests means remaining in approximately the same stanine[7] or percentile over time.

[7] Norm-referenced tests such as the PAT and STAR also report achievement in 'stanines', a number from 1 to 9, which tells you the range in which a student scored relative to the reference group (e.g. national norms for that year level). Most students score in stanines 4 to 6; 7-8 is above average; 2-3 is below average; 1 and 9 are low and outstanding, respectively. NZCER's website offers a good explanation of this, along with a graphical illustration showing stanines relative to a national distribution of scores: http://www.nzcersupport.org.nz/marking/?p=75

Accelerated progress means moving up to a higher stanine or percentile.

Again, the statistical artefact known as regression to the mean can make shifts for students achieving below curriculum expectations in literacy look more impressive than they really are, so caution is needed in interpreting these (see explanation on p. 13).

Like all other assessment instruments, **scores on norm-referenced tests (such as STAR, PAT) alone cannot be used to determine where students are achieving relative to curriculum expectations**. They must be combined with other information in an overall teacher judgement (recall Figure 3, p. 7).

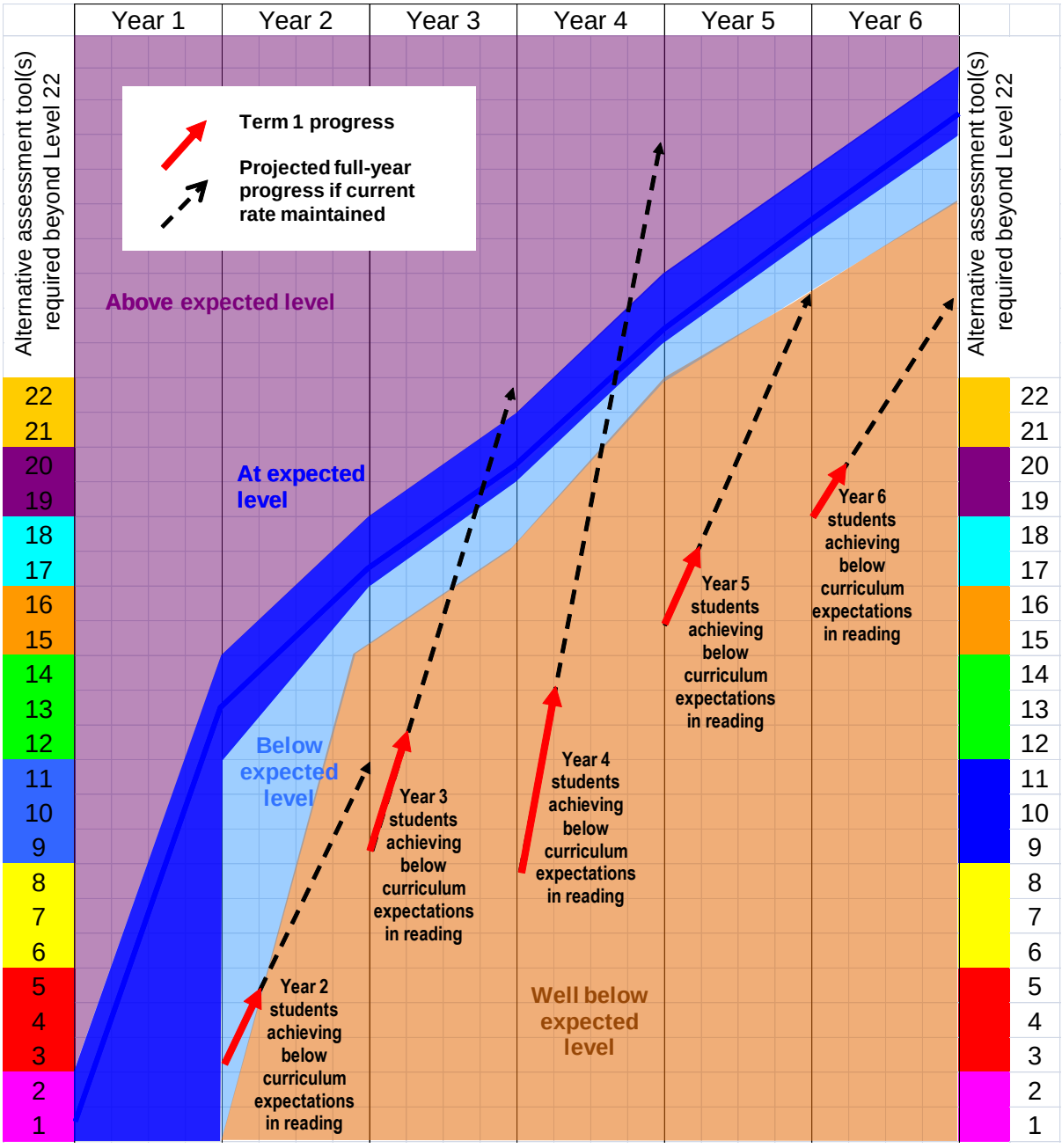
Guidelines are available online at Te Kete Ipurangi[8] showing how to make interpretations relative to the National Standards of student performance on:

- e-asTTle Writing
- e-asTTle Reading
- STAR Reading
- PAT Reading Comprehension and Vocabulary
- Observation Survey

[8] Information about the alignment of these assessment tools with the National Standards is available at: http://assessment.tki.org.nz/Assessment-tools-resources/Alignment-of-assessment-tools-with-National-Standards

In junior years and for students who are substantially behind curriculum expectations, there may be few standardised tests that are appropriate to use alongside monitoring text levels.

The following is an example of a graph showing one term of progress in Ready to Read text levels for primary school students starting off at relatively low levels of literacy. The dotted line shows where the Year 2-6 students achieving below curriculum expectations in literacy in that year might end up if the same progress trajectory continued over the entire school year.



Note that the projections (black dotted arrows) are not intended to be accurate predictions, but to provide a sense of what might be achieved with sustained effort.

Digging beneath average effects

All of the above show **averages** (means) of particular groups – in this case, students achieving below curriculum expectations in literacy, but schools would usually also want to plot progress for specific target groups such as Māori and Pasifika students, boys, ESOL students, etc.

However, **averages by themselves *mask* a lot of important information**, like what proportion of the students are experiencing really substantial progress and what proportion are being left behind. The progress grid presented in Table 1 (p. 8) and the subsequent analysis table (Table 3, p. 10) provided a sense of the *range* of progress. This is important to answer some of the questions listed on p. 5.

Interpreting effect sizes

As mentioned earlier, you should use MOE's guide for calculating effect sizes[9] to give you a gauge of the size of any shifts or accelerations, and to help with interpretation. The effect size tells you how many more (or fewer) standard deviations of progress your students experienced relative to the relevant comparison. Seek out support from MOE or suitably qualified providers to help you get these calculations right.

Educational researchers and evaluators use various benchmarks when interpreting effect sizes, depending on what they are evaluating. The Ministry of Education has some useful guidelines for determining what should be considered "good" progress for Māori students.[10] Several similar tools will soon be available to help with interpreting what constitutes good progress and achievement for Pasifika students and students with special learning needs.

There are various different ways of looking at effect sizes, but two are important here:

1. Size of gain over the course of a school year
2. Size of gain relative to a comparison (or, expected) gain

1. Size of gain over the school year

John Hattie, in his groundbreaking synthesis of over 800 meta-analyses relating to student achievement[11], argues that the typical effect of efforts to improve the effectiveness of classroom teaching (a.k.a. the 'teacher effect') are at about an effect size of 0.4 over one school year. Therefore, innovative approaches and interventions should aim to do better than that to be considered 'above average', with an effect size of greater than 0.6 over the year to be considered 'high' or 'excellent' gains.

[9] Available online at http://www.educationcounts.govt.nz/publications/schooling/36097/36098

[10] The Ka Hikitia rubrics developed under the Measurable Gains Framework cover Māori learner progress and achievement, as well as several other areas such as Māori learner engagement, effective teaching for Māori learners, parent and whānau engagement, and more. These are available online at: http://tiny.cc/kahikitia

[11] John Hattie (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* New York: Routledge.

Table 4. Hattie's guidelines for interpreting gains over one school year (effect sizes)

Effect Size	Evaluative Interpretation
0.6 and higher	'high' or 'excellent' gains
between 0.40 and 0.60	better than 'average teacher effect' gains
between 0.15 and 0.40	typical effects that can be achieved in a year of teaching
between zero and 0.15	developmental effects; typical of maturation alone, without schooling
below zero	reverse effects

2. Size of gain relative to a comparison gain

When looking specifically at effect sizes for change scores, another rough guide that schools may find useful is the following, adapted from a major review out of the UK's National Foundation for Educational Research entitled *What Works for Pupils With Literacy Difficulties?*[12]. This guide should be used in conjunction with MOE's guide for calculating effect sizes[13], which highlights some important caveats.

Table 5. Rough guide for interpreting effect sizes relative to comparison change scores

Effect Size	Evaluative Interpretation
0.80 and higher	large positive impact; of substantial educational significance
between 0.50 and 0.80	medium positive impact; of useful educational significance
between 0.25 and 0.50	small positive impact; of modest educational significance
between 0.10 and 0.25	very small positive impact; of doubtful educational significance
close to zero ± 0.10	no impact
below zero	negative impact (progress is slower than the comparison)

What comparisons should/could we make?

An important consideration when calculating effect sizes for accelerated progress is **which rates of progress constitute the most appropriate comparisons**. Which ones you choose depends on your main inquiry questions (see Table 6).

[12] Brooks, G. (2007). *What works for pupils with literacy difficulties? The effectiveness of intervention schemes (3rd ed.).* Online: http://nationalstrategies.standards.dcsf.gov.uk/node/84978
[13] Available online at http://www.educationcounts.govt.nz/publications/schooling/36097/36098

Table 6. Likely comparisons used depending on inquiry questions

Accelerated Progress Inquiry Question	Likely Comparison(s) Used
1. How much faster than expected rates of progress (against NZC and NS) are we accelerating our target students – so that they have a good chance of catching up to curriculum expectations?	Expected progress rate for students at this school year level, as laid out in the New Zealand Curriculum and the National Standards
2. How much faster are we accelerating students compared with what reasonably effective classroom teaching can typically achieve?	Typical effect of modifying classroom teaching, as described by Hattie (2009), i.e. an effect size of 0.4 over a school year
3. How much faster are we accelerating our target students than other schools do with similar groups of students?	Comparison progress rates from MOE's national database for students achieving similarly below curriculum expectations in literacy
4. How much faster are we accelerating our target students compared with before?	Previous rates of progress for students achieving similarly behind curriculum expectations in literacy
5. How much faster are we accelerating our target students compared with other same-decile schools?	Comparison data from same-decile schools in your own cluster (if applicable) Comparison progress rates from MOE's national database from same-decile schools and for students achieving similarly below curriculum expectations in literacy

You will need to answer Question 1, at a minimum, in order to use the evaluative rubric in the next section. Many schools will also be interested in Questions 2, 3, 4 and/or 5, if the comparison data are available.

USING THE EVIDENCE TO MAKE JUDGEMENTS ABOUT EFFECTIVENESS

The next step in the process is to turn the discussions of the data into evaluative judgements about how effective the school has been in achieving progress for its students achieving below curriculum expectations in literacy. To do this, we use a tool called a rubric.

> A rubric is a description of what performance looks like at different levels of effectiveness.

Rubrics have been used for years in student assessment to clarify expectations and standards, and to increase the validity and reliability (consistency) of grading essays and assignments. In evaluation, we can also use these tools to help define 'how good is good' when it comes to student progress (or literacy programming, or school literacy learning culture, etc) and to judge the mix of evidence we have before us.

Using the first rubric

This step should be used after the initial reflective discussion and gathering and analysis of evidence. This includes plotting student progress relative to NZC and the National Standards using a Progress Grid for each year level (see p. 7).

Our task now is, as a group of literacy leaders (and, involving other staff as appropriate), to take the analysed evidence of student progress in literacy and answer the question of "how good" those results are. We do this using an evaluative rubric, which describes what the evidence will look like if our efforts are highly effective vs. minimally effective (etc) for students achieving below curriculum expectations in literacy (see p. 21).

Where to start with the rubric

The development schools have experimented with two alternative 'quick start' approaches to using the rubrics, once they were familiar with the content. Each approach was found to be useful for understanding their data and determining next steps.

Option #1: Start at 'the bar'

1. Jump straight down to the Minimally Effective description and check whether the evidence at hand meets the requirements there, more or less.
2. Skip down to Ineffective and then to Detrimental to make sure that none of the items in those levels is evident within the school. If any are found, these are your most urgent points for swift action.
3. If nothing Ineffective or Detrimental is found, and if the requirements under Minimally Effective are met, move up the levels (Developing Effectiveness → Consolidating Effectiveness → Highly Effective) one by one to see how high a rating seems to be justified.
4. Remember, you are not aiming for an absolutely exact match here. The key question is, which 'picture' does our evidence match most closely?

Option #2: Trawl for the 'centre of gravity'

1. Have the group work through the rubric – individually, in small groups, or as a whole group – and *highlight the statements that match the evidence* in any and all of the levels.
2. Next, *identify the 'centre of gravity'* (where most of the descriptions fit; your median and/or mode) and note this as your initial approximate rating.
3. Finally, carefully *consider exceptions in the evidence* (higher and lower instances of effectiveness in particular areas). Discuss whether these are important enough to justify upgrading or downgrading the overall rating.
4. Again, the intent here is not to look for an exact match, but to generate an overall conclusion or 'best fit' based on where the greatest weight of evidence lies, while at the same time highlighting any particular points of strength or weakness that should be celebrated or addressed.
5. Some schools found that their evidence was so mixed (very strong results for some students; much weaker ones for others) that it made little sense to draw an overall conclusion. Instead, they highlighted the strengths and weaknesses relative to the rubric in the outcomes for students achieving below curriculum expectations in literacy.

Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy

CORE CONCEPT: *To what extent and how well does our school achieve progress for our students achieving below curriculum expectations in literacy? Is our students' progress fast enough to be considered "minimally effective," "highly effective" (etc)? How well is the potential of diverse students realised? How effectively is the school reducing any disparities in literacy progress? And, how effectively is progress monitored and analysed, and the information shared and used to inform practice?*

RATING	DESCRIPTION
Highly Effective	ALL of the following are evident and backed by sound evidence: • The vast majority[14] of students currently or previously identified as achieving below curriculum expectations in literacy are making a *useful rate of accelerated progress*[15] and virtually all are making at least *some* accelerated progress relative to (a) curriculum expectations and, if data are available, (b) the usual rate of progress for the most relevant comparison group. • The accelerated progress of students achieving below curriculum expectations in literacy is fast enough to ensure that virtually all students are reading and writing at levels consistent with the Literacy Learning Progressions, the National Standards and (as appropriate) the English Language Learning Progressions by the time they leave the school (be this Year 6 or Year 8) – *any exceptions* to this are limited to extremely challenging cases such as children with special needs and highly transient student populations. • Accelerated progress for students achieving below curriculum expectations in literacy is equally evident across boys and girls and children of all ethnicities – there are no subgroups who are being disproportionately 'left behind' in improved literacy outcomes. • During their time at the school, students with special needs and those at the school for only a short time have their capabilities maximised, progress at their full potential, and use their language competencies in a range of school settings. • Students are clearly enjoying success and reaching their potential in literacy *in ways that support and build on* the strengths and worldviews that reflect their family and cultural values and perspectives. • Virtually all students are able to articulate their progress in reading and writing, and there is clear and substantial evidence of increased levels of confidence, self-awareness, engagement and motivation. • There is a clear, shared understanding among all key people regarding expectations of progress; all key people actively respond to information on students' progress and uphold the shared learning goals. • Purposeful, appropriate and SMART assessment tools are used to track and measure student progress against NZC, the National Standards, the Literacy Progressions and (as appropriate) the English Language Learning Progressions; data are insightfully analysed, in depth by subgroup (e.g. Māori, Pasifika, ESOL and gender) and using an eclectic range of techniques, to better understand what is working and not working for each student and why (see also *Sound needs and strengths assessment*, Rubric 1, and *Sound evaluation and use of learnings*, Rubric 10)

[14] The following approximate guide may be useful when interpreting terms:
- Virtually all = close to 100%, with only small numbers of reasonable exceptions, as noted
- The vast majority = usually about three quarters or more
- A clear majority = *significantly* more than half
- Most = more than half

Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy

CORE CONCEPT: *To what extent and how well does our school achieve progress for our students achieving below curriculum expectations in literacy? Is our students' progress fast enough to be considered "minimally effective," "highly effective" (etc)? How well is the potential of diverse students realised? How effectively is the school reducing any disparities in literacy progress? And, how effectively is progress monitored and analysed, and the information shared and used to inform practice?*

RATING	DESCRIPTION
Consolidating Effectiveness	ALL of the following are evident and backed by sound evidence: • A clear majority (i.e. *significantly* more than half) of students achieving below curriculum expectations in literacy are making a *useful rate of accelerated progress*[15] above and the vast majority are making at least *some* accelerated progress relative to (a) curriculum expectations and, if data are available, (b) the usual rate of progress for the most relevant comparison group. • The accelerated progress of students achieving below curriculum expectations in literacy is fast enough to ensure that the vast majority of students are reading and writing at levels consistent with the Literacy Learning Progressions, the National Standards and (as appropriate) the English Language Learning Progressions by the time they leave the school (be this Year 6 or Year 8) – *any exceptions* to this are limited to extremely challenging cases such as children with special needs. • Accelerated progress for students achieving below curriculum expectations in literacy is very similar across boys and girls and children of all ethnicities – any remaining disparities are small, steadily reducing, and being actively addressed to ensure that no subgroups are disproportionately 'left behind' in improved literacy outcomes. • During their time at the school, students with special needs have made substantial progress in their reading and writing – i.e. the outcomes are *very strong* for these students given their capabilities, and there is evidence that they are at least starting to apply these skills in a range of learning settings. • There is evidence that students are enjoying success and reaching their potential in literacy *in ways that support and build on* the strengths and world-views that reflect their family and cultural values and perspectives. • The vast majority of students are able to articulate their progress in reading and writing, and there is clear evidence of increased levels of confidence, self-awareness, engagement and motivation • There is a very good level of shared understanding among key people (including students achieving below curriculum expectations in literacy and their parents/whānau) regarding expectations of progress • Purposeful, appropriate and SMART assessment tools are used to track and measure student progress against the National Standards, the Literacy Progressions and (as appropriate) the English Language Learning Progressions; data are insightfully analysed by subgroup (e.g. Māori, Pasifika, ESOL and gender), to better understand what is working and not working for each student and why

- At least some = a significant number, not just a handful, but likely to be fewer than half

[15] For help with interpreting a 'useful' rate of progress, consider both Table 1 (p. 7) and Table 5 (p. 18).

Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy

CORE CONCEPT: *To what extent and how well does our school achieve progress for our students achieving below curriculum expectations in literacy? Is our students' progress fast enough to be considered "minimally effective," "highly effective" (etc)? How well is the potential of diverse students realised? How effectively is the school reducing any disparities in literacy progress? And, how effectively is progress monitored and analysed, and the information shared and used to inform practice?*

RATING	DESCRIPTION
Developing Effectiveness	ALL of the following are evident and backed by sound evidence: • Most students currently or previously identified as achieving below curriculum expectations in literacy are making a *useful rate of accelerated progress*[15] above and a clear majority are making at least *some* accelerated progress relative to (a) curriculum expectations and, if data are available, (b) the usual rate of progress for the most relevant comparison group. • The accelerated progress of students achieving below curriculum expectations in literacy is fast enough to ensure that the vast majority of those students are reading and writing at levels consistent with the Literacy Learning Progressions, the National Standards and (as appropriate) the English Language Learning Progressions by the time they leave the school – *most exceptions* to this are limited to challenging cases such as children with special needs and other significant challenges. • There is evidence of some reduction in disparities in literacy progress between boys and girls and among students achieving below curriculum expectations in literacy of different ethnicities; any remaining disparities are being addressed. • There is evidence that, in their time at the school, students with special needs and other significant challenges have made good progress in their reading and writing – i.e. the outcomes are *strong* for these students, given their capabilities. • There is evidence that students are starting to enjoy greater success in literacy *in ways that support and build on* the strengths and worldviews that reflect their family and cultural values and perspectives. • Most students are able to articulate their progress in reading and writing, and there is good evidence of increased levels of confidence, self-awareness and motivation • There is a good level of shared understanding among key people (including students achieving below curriculum expectations in literacy and their parents/whānau) regarding expectations of progress • Student progress is monitored in a timely way against NZC, the National Standards and (as appropriate) the English Language Learning Progressions; data are analysed by subgroup (e.g. Māori, Pasifika, ESOL and gender), shared and discussed with the student and key others; people question the rate of progress (i.e. just any rate of progress is not considered acceptable); rates of progress are regularly reviewed and (for individuals and cohorts) tracked over the entire time they are at the school, and are used effectively to select and adapt approaches for each student

Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy

CORE CONCEPT: *To what extent and how well does our school achieve progress for our students achieving below curriculum expectations in literacy? Is our students' progress fast enough to be considered "minimally effective," "highly effective" (etc)? How well is the potential of diverse students realised? How effectively is the school reducing any disparities in literacy progress? And, how effectively is progress monitored and analysed, and the information shared and used to inform practice?*

RATING	DESCRIPTION
Minimally Effective	All of the following generally apply, with only minor variations: • At least some students (i.e. a significant number, but likely to be fewer than half) currently or previously identified as achieving below curriculum expectations in literacy are demonstrably making a *useful rate of accelerated progress*[15] above and most are making at least *some* accelerated progress relative to (a) curriculum expectations and, if data are available, (b) the usual rate of progress for the most relevant comparison group. • The accelerated progress of students achieving below curriculum expectations in literacy is fast enough to ensure that most of these students will be reading and writing at levels consistent with the Literacy Learning Progressions, NZC, the National Standards and (as appropriate) the English Language Learning Progressions by the time they leave the school – *most exceptions* to this are limited to challenging cases such as children with special needs or other significant challenges. • There is evidence of some reduction in disparities in literacy progress between boys and girls and among students achieving below curriculum expectations in literacy of different ethnicities; any remaining disparities are being addressed. • In their time at the school, transient students and those with special needs or other significant challenges have made reasonable progress in reading and writing and have not slipped further behind. • There is evidence that students are starting to enjoy greater success in literacy *in ways that support and build on* the strengths and worldviews that reflect their family and cultural values and perspectives. • At least some students are able to articulate their progress in reading and writing, and there is some evidence of increased levels of confidence, self-awareness and motivation • There is a reasonable school-wide understanding regarding expectations of progress for students achieving below curriculum expectations in literacy • Student assessment data are collected, recorded, analysed by subgroup (e.g. Māori, Pasifika, ESOL and gender) and shared; barriers to progress are identified; rates of progress are regularly reviewed and (for individuals and cohorts) are tracked over the entire time they are at the school. • At any particular time, the school should know the numbers of students achieving below curriculum expectations in literacy, of various subgroups, who are at various curriculum levels AND how fast they are accelerating over time. This information should be up to date, drawing on a combination of formal and informal literacy assessments that are conducted more often and more rigorously than for students who are not struggling with reading and writing.

Rubric 9. Accelerated progress for students achieving below curriculum expectations in literacy

CORE CONCEPT: *To what extent and how well does our school achieve progress for our students achieving below curriculum expectations in literacy? Is our students' progress fast enough to be considered "minimally effective," "highly effective" (etc)? How well is the potential of diverse students realised? How effectively is the school reducing any disparities in literacy progress? And, how effectively is progress monitored and analysed, and the information shared and used to inform practice?*

RATING	DESCRIPTION
Ineffective	Any one or more of the following: • Students currently or previous identified as achieving below curriculum expectations in literacy are generally progressing at about the expected rate of progress against NZC and at about same pace as the most relevant comparison group[16] (i.e. parallel to the comparison group's trajectory), with few making accelerated progress. • During their time at the school, transient students and those with special needs or other significant challenges have made some progress in reading and writing, but in many cases progress falls short relative to reasonable expectations. • There are gaps in the school-wide understanding regarding expectations of progress for students achieving below curriculum expectations in literacy • Assessment data are collected and analysed, and are just sufficient to get an approximate idea of progress rates; however, there is significant room for improvement
Detrimental	Any one or more of the following: • A number of students currently or previous identified as achieving below curriculum expectations in literacy have been progressing *at a slower rate than their national peer group*, i.e. they have fallen even further behind while at the school. [Note: It may not be considered 'detrimental' for some children with special needs to be progressing more slowly than national peer norms – the literacy team should consult with special education specialists to determine whether these children are progressing adequately in literacy relative to their strengths and capabilities.] • Several teachers are not able to articulate the expected rate of progress for students achieving below curriculum expectations in literacy in their classes. • Student assessment data are inadequate to gauge progress, so it is not known whether students are progressing fast enough.

[16] For guidance about the appropriate 'relevant comparison group' given the inquiry question, see Table 6 (p. 18).

WHAT NEXT?

Inquiry into the accelerated progress question (Rubric 9) is likely to naturally lead each school toward a selection of the other inquiry questions/rubrics as areas to drill down into and understand better. Some discussion questions literacy leaders might also use to guide the avenue of inquiry include:

- What do we believe are the key 'drivers' (or, causes) of our successes and/or disappointing results on accelerated progress for students achieving below curriculum expectations in literacy? [Brainstorm with the group; look at the logic model – Figure 2 (p. 3) – for ideas.]
- Where do we think we might have significant room for improvement and need to get a serious school-wide conversation started?
- On which of the questions do we have disagreement within the school about how well we are doing? In which areas would it be helpful to start an inquiry process to clarify our understandings?
- Which of the inquiry questions is an area of particular interest in our school? Which is a frequent topic of conversation?
- Which of the questions have we never really considered – but should?
- Which of the questions would we have some good evidence available for already?
- Where do we think we are doing quite well and would be energised by the success stories?

How long should our inquiry process take?

Schools should generally expect to go through a process of working through most or all of the rubrics over a period of two to three years, with at least three to four completed in the first year and ongoing action being taken (and then evaluated, as per the inquiry cycle, p. 1) based on the findings each time.

The developmental schools' experience was that the first one or two rubrics (and particularly Rubric 9, looking at accelerated student progress) were both time-consuming and valuable as literacy leaders 'found their feet' with these new inquiry tools. Use of later rubrics went much more quickly because (a) most don't require intensive analysis of assessment data and (b) by this stage the group was familiar with the use of rubrics and could work more quickly and effectively to gain insights.

MORE DETAILS

The full list of rubrics, plus additional information (including FAQs) is available in the full Self-Review Tool for Schools: Focus on Students achieving below curriculum expectations in literacy.