Introduction to Brightpath

Dr Stephen Humphry and Dr Sandy Heldsinger have researched and developed a methodology of obtaining reliable and valid data from teacher assessments of typical classroom tasks. The researchers began this work twenty years ago when they were responsible for the Western Australian state testing program and they continued their research through the University of Western Australia. Humphry and Heldsinger have custom built software, called Brightpath, to make the assessment process readily available to schools.

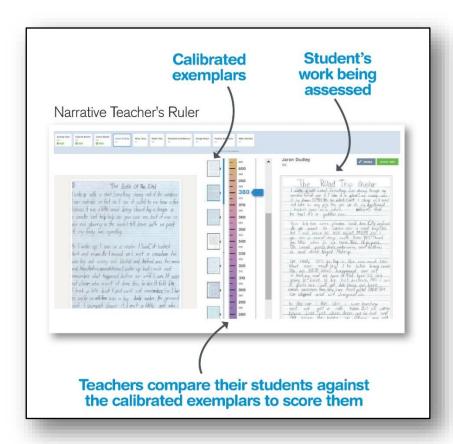
Overview of the assessment process

There are two stages to the assessment process.

In stage 1, the researchers, with the assistance of classroom teachers, calibrate student work performances to develop an assessment scale. Once developed, the scale comprises of calibrated exemplars and performance descriptions/learning progressions.

Stage 2 involves teachers comparing their students' work to the calibrated exemplars and the performance descriptors and scoring the work accordingly. Figure 1 illustrates how teachers score their students using Brightpath.

Figure 1: Overview of the assessment process used in Brightpath



Essential features of the innovation

Firstly, the data collected from teacher judgements are *reliable*. In over one hundred studies, Humphry and Heldsinger have been able to demonstrate that the data collected is as reliable as the data collected from the Australian national testing program (NAPLAN).

Secondly, the assessment process provides *a scaled score* from the teachers' assessments. Prior to Brightpath, a scaled score could only be achieved through externally imposed standardized testing programs. The Brightpath scaled score allows teachers to view their students' performance relative to younger and older students, track growth in student learning and evaluate their impact on student learning.

Application in schools

Brightpath has been developed to ensure that teachers can easily assess their students and can readily use the data to inform their practice. As such, as teachers score their students their scores are automatically captured in the reports.

Brightpath was adopted as the state testing program in Western Australia in 2017 (all 3 sectors) and South Australia (department schools) in 2019. SA extensively trialled Brightpath for two years. In both states there is evidence that Brightpath is leading to strong improvement in student writing.

Schools from across Australia are using Brightpath and these schools range from high feepaying schools such as Knox Grammar and Methodist Ladies College in Sydney and Ramingining Remote Community school in the Northern Territory.

The following assessments are available to schools:

- Narrative writing (students aged 5 to 14)
- Persuasive writing (students aged 5 to 14)
- Information report writing (students aged 5 to 14)
- Recount writing (students aged 4 to 7)
- Oral narrative (students aged 4 to 7)
- Book review (students aged 8 to 14)

Research is currently underway to develop extended mathematics tasks, and assessments of science investigations, creativity and critical thinking.

Brightpath reports

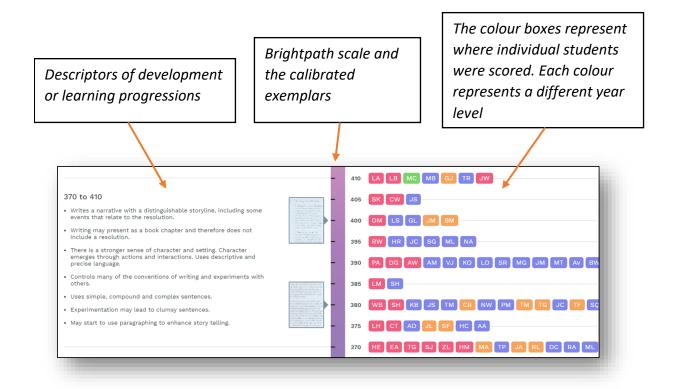
As the assessment process provides reliable data and scaled scores from teachers' assessments, it is possible to provide both **formative** and **summative** assessment information to teachers, school leaders and the education system more broadly.

Formative assessment information

There are a number of reports that help teachers and students look at where students are in their learning, where they need to go and how much progress has been made.

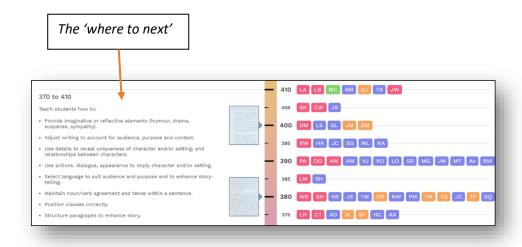
The performance profile (Figure 2) shows students' scores relative to the performance descriptors and calibrated exemplars.

Figure 2: Brightpath performance profile



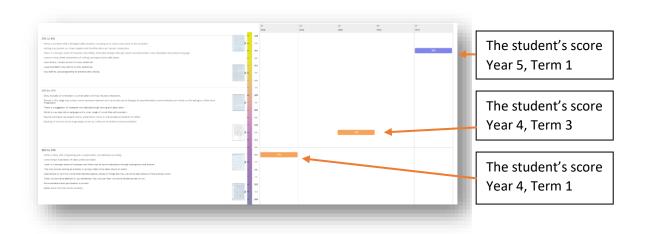
The teaching points display (Figure 3) tells teachers and students what students need to learn next, based on the students' scores.

Figure 3: Brightpath performance profile



Teachers can also view individual student progress (as shown in Figure 4).

Figure 4: Brightpath individual student growth report



Teachers can readily share the assessment information with their students., if they feel it's appropriate. There is a report for students (Figure 5) and there are resources that teachers can use in the classroom (Figure 6).

Figure 5: Report to students

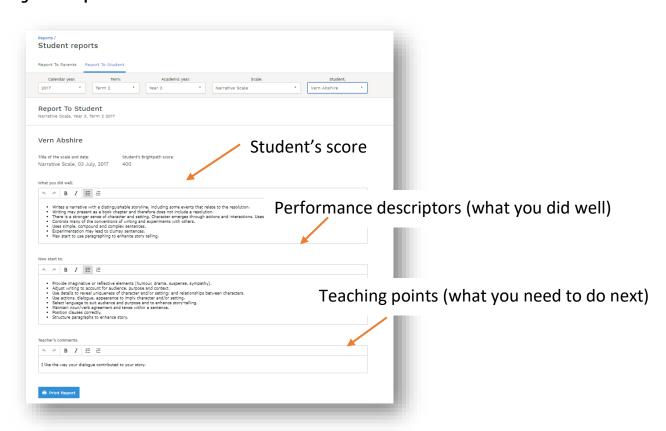


Figure 6: Sharing the information in the classroom



Each students' position on the Brightpath Ruler is depicted by their personal butterfly.





This teacher has also provided the teaching points so that students can see the skills they need to learn and practice.

Summative assessment information

There are a number of reports that help school leaders and teachers evaluate whole school performance. Figure 7 shows a report that allows school leaders to view the data of all year levels on the same scale.

Figure 7: Distributions for each year level



Each box in the histogram represents the number of students given that score, on the scale.

Each year level is shown on a different vertical axis and is depicted in a different colour.

School leaders can see the spread of ability at a year level as well as the overlap of ability across year levels. Figure 8 below shows a report that allows school leaders to view their school performance relative to the All Schools' performance.

Figure 8: School level comparisons



It is particularly challenging for school leaders and teachers to know and demonstrate how much progress students are making. Figure 9 shows the report that allows teachers to see the distribution of a group students the first time they were assessed relative to the distribution the second time they were assessed.

Post Test

Pre-Test

Tree Distribution

Tree Distribution

Post Test

Pre-Test

Pre-Test

STANDARO DEVIATION

NUMBER

Pre-Test

306.2

49.4

78

Standardised Growth Score

POST-TEST

Figure 9: Pre- and post-test report

In summary

The observed benefits:

1. Brightpath uses typical classroom tasks.

PRE-TEST

- 2. Brightpath develops teachers' assessment skills. School leaders often refer to Brightpath as in the moment professional learning.
- 3. Brightpath provides teachers with information as to what they need to teach next based on how they assessed their students.
- 4. Brightpath helps teachers differentiate learning.
- 5. Brightpath enables school leaders to use their teachers' assessments to rigorously evaluate their school performance.

Further information

Humphry and Heldsinger's research articles are provided here: https://www.brightpath.com.au/research

Demonstration videos and interviews with school leaders are available here: https://www.youtube.com/channel/UC_fOexgi7kiH3eachZTrO8g

Contact details

Dr Sandy Heldsinger

Sandy@brightpath.com.au

+61 8 409 341 557