Improving student outcomes **with Yellis**

Using Yellis to identify and manage underperformance

Matthew is a generally able student who joined his school at the beginning of year 10 after his family re-located. He shows particular aptitude in English and some aspects of History, but his teachers feel he is not doing as well as he should and he has a tendency to underachieve in his written tasks.

Matthew appears to possess plenty of confidence and expresses his ideas clearly and assertively. A number of his teachers have noted that Matthew is not working at the same pace as many of his peers and his classwork is affected by his lack of concentration and participation in low-level disruption.

Along with the rest of year 10, Matthew sat the Yellis assessment in October, and at first glance, his results may not appear to demonstrate anything remarkable.

However, a closer look at the breakdown of his scores reveals a more complex story.

The Yellis assessment

Yellis is a baseline assessment specifically designed to measure the performance, potential and attitudes of students aged between 14 and 16.

Yellis assesses three key cognitive areas which research shows are linked to later academic outcomes, involving a combination of multiple choice and free-entry answers:

- **Vocabulary** – word fluency and understanding
- **Mathematics** – logical thinking, manipulating numbers and numerical concepts
- **Non-verbal ability** – ability to match patterns, reflections and rotations and apply visual intuition
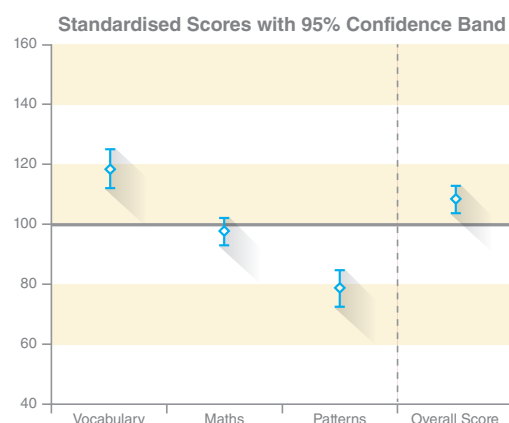
The Individual Pupil Record offers standardised scores and a breakdown of Vocabulary, Mathematics and Non-verbal scores visually detailing student strengths and weaknesses in each section of the assessment

Identifying concerns

Matthew's overall Yellis score is 109 which places him towards the top of the 'average' range (the 'average' range is considered to be between 85 and 115) which is broadly in line with what his teachers expected to see.

Matthew is particularly articulate and this is reflected in the Vocabulary score of 119 (above average). Matthew's Maths score of 98 falls in the middle of the average range and therefore isn't necessarily concerning.

However, the interesting result is the Patterns score of 79 as this is considerably lower than the other areas of the assessment and is below the national average.

What can the Patterns section tell us?

The Patterns section asks students to analyse visual information and solve problems using visual reasoning, such as:

- identifying relationships
- similarities and differences between shapes and patterns
- recognizing visual sequences
- relationships between objects.

High scores in the Patterns section indicate a student's ability to analyse and solve complex problems without relying upon, or being limited by, language skills. Lower scores tend to be seen in students who experience difficulties in understanding, learning and assimilating new information, or who process information slowly.
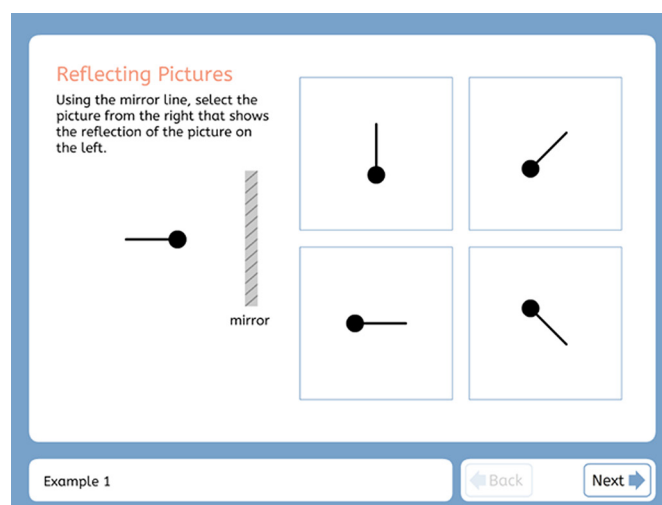
The Patterns section assesses students non-verbal abilities, based on their ability to match patterns, reflections and rotations and apply visual intuition.

The Patterns section provides a measure of students' ability in 3-D visualisation, spatial aptitude, pattern recognition and logical thinking. These skills can have an impact in a range of subjects, including maths, science, design technology, geography, art and drama.

Find out more: cem.org/yellis

Yellis provides an additional
layer of information

When combined with the reports from his previous school, and the observations made by his current teachers, Matthew's Yellis scores add an additional layer of information helping to form a clearer picture of possible reasons for Matthew's underachievement.

Matthew's low Patterns score indicates that he may have an issue with processing information. This may manifest itself in a number of ways in the classroom, for example having problems starting a task and staying focused, working more slowly than his peers, and inattentive behaviour.

Impact on exams

This issue may have been masked for a number of years by his advanced communication skills and his overall ability. However, with the increased academic demand that comes along in the GCSE years, it appears to be affecting Matthew's achievement and could potentially be exacerbated when he is under time pressures in exam conditions.

What can Matthew's school
do to help him?

Evidence provided by Yellis and other assessments can help to secure Matthew extra time in examinations to allow the best opportunity for him to perform to his full potential.

Matthew's school could also work with him on specific coping strategies to help him with the processing of information in class. Staff could:

- Be understanding and supportive, but create expectations for sustained effort and improvement.
- Allow additional time when appropriate, but also encourage him to advocate for himself when he needs more time.
- Break down large tasks into small manageable chunks.
- Provide alternative options to written tasks to assess understanding.

It is important to note that while Yellis is not a diagnostic test it can be used along with professional judgement to indicate potential issues and identify where further investigation may be needed.

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