



ARE YOU ASKING THE RIGHT QUESTIONS ABOUT YOUR DATA?

ABSTRACT

Data analysis should be set up so that it is a quick and effective way of getting to the heart of the college priorities. It should empower staff at all levels, prompting them to reflect on their own practice. Leaders should be able to reflect on strategy, adapting and redistributing resources accordingly. It should facilitate the ability to ask insightful questions arising from their data analysis. Most importantly, it should impact directly and positively on the progress of the students in our classrooms. This paper considers the use of data in a Sixth Form context. Although it has been written by Alps, it can readily apply to any data analysis platform, internally developed or an alternative external system.

Department for Education performance tables are now very much about progress measures rather than achievement rates, and therefore we have well developed internal data analysis tools which support us in making judgements about progress throughout the academic year. There are still times when we should remain mindful about achievement. For many of our students, their university places will depend on the achievement of a certain number of UCAS points or a collection of grades.

There are differences in the ways in which the L3VA compares student progress to these platforms, but essentially, they measure the journey from the end of GCSE to the end of the level 3 course. Their benefits include the fact that we can measure student progress as determined by professional predictions made by teaching staff at various points in the year. This does mean that our internal assessment systems have to be as robust and as accurate as possible. The consequences of inaccurate assessment data may result in less effective intervention programmes and an unfair distribution of resources.

The remainder of this paper is about progress indicators and the importance of asking the right questions about the analysis of the progress data, be it end of year or in-year data.

Let us consider our key data points across the academic year, the types of analysis that will be addressed at each point, and the quality assurance questions that might arise from that analysis.

1. Results day and the review of results into September - the analysis of your summer A level, AS (if still being taken) and vocational outcomes.
2. Target setting at the beginning of the year – setting appropriate targets for your incoming students and reviewing those progressing to year 2.
3. Monitoring / in-year analysis – the different phases to your internal assessment cycle and the impact that your data analysis is having on the progress of your current students.

One obvious point to note throughout the rest of this paper is that data analysis, although interesting and informative, is only a part of the drive to improve performance. Successful colleges combine effective data analysis tools with the following three elements to ensure that all of their students are making consistent progress:

1. Strategic leadership in the sixth form by senior staff and heads of subject areas
2. Systems of student guidance and support, target-setting and continuous monitoring and their effectiveness
3. The quality, administration and organisation of teaching and learning

KEY QUESTIONS RESULTING FROM THE REVIEW OF EXAMINATION OUTCOMES

Again, in successful colleges, there is a shared understanding across all staff on the purpose of this analysis and the ways in which it will be used. Many colleges will ensure that subject areas have developed action plans in the summer term, and therefore this review of results should be a reflection on whether the priorities remain the same.

Often the review and analysis of external examinations will feed directly into the line management / quality assurance model. A shared understanding of the types of analysis to be carried out, the main college / subject priorities

and types of questions which can be asked will lead to a more detailed and productive discussion between a senior leader and a subject lead, or between teachers within a subject area.

There are opportunities at this point in the cycle to assess the accuracy of predicting. A member of SLT will look at predicting consistency across the whole college, and a subject leader across the classes that they oversee. Classroom teachers too should reflect on their own professional judgements in this respect and make necessary adjustments for the coming year.

Some of the questions that you might consider during your analysis of the summer results:

- How do your headlines compare with last year and over a 4-year trend? Has there been an improvement in progress indicators overall and therefore cause for celebration? Or is there still work to be done? This can be done both at a whole college level or at a subject level. Senior staff will reflect on both.
- Have all groups of students made progress in line with their targets? Have they made progress in line with their peers, in other words are there gaps? Is there a particular group of students who have underperformed? Remember to carry out this analysis at a subject level and for the whole college. There may be groups you have not considered – some are more obvious than others:
 - o Are the most able being stretched?
 - o Disadvantaged students – are they making progress equivalent to their peers?
 - o Is gender an issue – are your boys making equivalent progress in literacy- based subjects as your girls?
 - o Have you considered students from different feeder schools?
 - o Are there students who have poor literacy / numeracy skills when they come to you – have you tracked them and intervened so that gaps are narrowed?
- Are students making consistently good progress across all subjects? Is there a trend in the types of students taking different courses and is everyone performing to an equivalent level? Could this inform your guidance policy for future year groups?
- Are there any anomalies or surprises in your teaching set performance? Are there any discrepancies between classes within the same subject or subject area?
- Can you use subjects where progress is strong to support those where less progress is being made?
- Do you need to adjust your strategic priorities? Which subject areas require additional support/ resources?
- Are the actual outcomes in line with the predicted outcomes?
- Were staff aware of how they arrived at their predicted grades across the year, and is there clear evidence through your line management model to address this?
- Were intervention sessions targeting the appropriate students? Was intervention successful?
- Were your assessment points timely in allowing staff to predict performance?
- Were your tutors active in supporting the work of the subject teachers across the year?

The main job of work to do now is to establish the reasons behind why some of these questions might be NO, and then implement strategies to impact on those progress outcomes.

HOW THOROUGH IS YOUR TARGET SETTING POLICY?

A robust target setting policy is key to ensuring that students know their potential. Staff in a successful college will understand how to generate subject specific target grades and ensure that these are both aspirational and realistic for their students. They use these grades to track and monitor student progress across the course and are pro-active in involving students in this process.

KEY TARGET SETTING QUESTIONS

- Is there a clear college policy on how staff will set subject specific targets?
- Are these aspirational? Are you planning for the college and subject progress indicators to be amongst the top sixth form providers nationally?
- Are students involved in the target setting process – is it a two way dialogue?
- Are targets reviewed regularly and amended as necessary?
- Are staff actively tracking students against these aspirational targets?

IN-YEAR TRACKING AND MONITORING POINTS

Colleges vary significantly in the number of internal assessment points they have in their annual cycles, and by the type of data that is collected at each point. The most common data type is the predicted grade – the professional judgement as to what each student is realistically likely to achieve at the end of the course.

However, there is merit in the collation and analysis of other data sets, for example, working at grades and raw mock examination grades. It all helps to build a picture on progress if used effectively and if learning points are implemented into learning and teaching strategy. It is important to build up a trend across data points for a year group. This might look as follows for a typical Year 13:

1. A base line grade at the beginning of Year 13 – this may be an AS grade or an internal predicted grade generated from the end of Year 12, for example from a mock examination. It will provide a start point from which to base all intervention in the Autumn Term
2. Interim predicted / working at grades as the Autumn Term progresses
3. Mock examinations in January – it can be useful to analyse mock outcomes against teacher predicted outcomes. This can highlight potential gaps in examination skills or knowledge and understanding issues.
4. Final predicted outcome grades based on professional judgement around March / April. This will form the basis of the final intervention strategies for the A / AS level revision period, or for the review of BTEC units.

Once this assessment cycle has been agreed across the college, the process of data submission, analysis and reflection can take place in a more structured way.

Sample questions that might be asked following the submission of an in-year data set to your data platform:

- Do all staff know how and when they are expected to generate grades? Decide on grades to be submitted and share the purpose of each grade point with staff to ensure consistency.
- Determine a base grade point for your Year 13 – can you use Year 12 internal examinations as a 'base point' for tracking Year 13 progress?
- Do you have concerns regarding students progressing from Year 12 to Year 13 based on examination performance or mock performance at the end of Year 12?
- Have they identified students where there is concern regarding progression? Are you using your tutors and Head of Sixth effectively to ensure that guidance given is appropriate and timely?
- Subject progress trends - are predictions in line with previous predictions? Has there been any significant change in grades across the grade points? Do predictions differ significantly from previous examination outcomes indicating an issue in predicting accuracy?
- If you are analysing a set of raw mock grades - is there a discrepancy between predicted grades and raw test grades/current working grades? Have mocks been prepared thoroughly? Have students been prepared thoroughly?
- Have you reviewed the progress of your key groups of students at a subject or teaching set level? Are there gaps in progress between any groups?
- Have you planned a series of meetings where SLT and Subject Leads review priorities?
- Has any intervention taken place since the previous grade point and what has the impact been?
- Do subject targets remain aspirational / realistic?

There are some additional questions for your pastoral teams and learning mentors:

- Are there students who are underperforming across all subjects in an in-year monitoring point?
- Is there a place for a more holistic support plan for that student?
- Are there groups of students who are underperforming because of a shared barrier to learning, for example, less well developed numeracy skills? Is there a college wide strategy to address these issues?

- Are students having positive learning conversations with their mentors / tutors to ensure that they are on track to achieve their aspirational target?
- Are predicted grades being measured against UCAS offers where and when relevant?

THE IMPORTANCE OF THE SUBJECT LEVEL DATA ANALYSIS

Whole college strategic indicators tell a picture which is directly related to the subject performance across a college. The success of a college at this strategic level is firmly rooted in how well each subject performs.

An obvious statement, but colleges with good progress outcomes overall have a high percentage of subject gradings where progress is strong. They have developed consistent strategies at a whole college and subject level to ensure that their staff are empowered to make the most impact on the students in their classes.

And so too the students entering those subjects. Successful colleges focus on the impact of the subjects which have the largest number of entries. The students studying those subjects rely on having the best possible chances of achieving their full potential, and a weaker subject area will certainly put that at risk. Therefore, for various reasons, the best colleges focus on the best possible guidance for their students based on their historical progress outcomes, potentially guiding students away from poorer performing subjects. Analysis of subject performance by entry size can support college leaders in understanding exactly where to focus resources and support and challenge strategies to maximise college performance and ultimately improve the life chances for their students.

HOW DO YOUR SUBJECTS MEASURE UP? THE QUESTIONS THAT DATA RAISES ABOUT LEARNING AND TEACHING.

So, what are the subject leaders and teachers in those 'top' subject areas and faculties doing that makes such a difference to their students. Embedding an aspirational culture is driven by the leadership team but is aimed at empowering subject leaders and subject teachers.

The quality assurance processes are well defined, and clearly understood by everyone across the teaching staff. For example, staff are clear as to what assessment data will be expected from them and at which points in the academic year. They understand the type of data they will need to submit and what their assessment will be based on. If this is a predicted professional judgement about what each student is likely to achieve at the end of the course, there is consistency across all college staff about how to arrive at this grade. Students have been clear from the outset of their courses about when assessments will take place and how staff will use these grades to intervene, support and challenge them to maximise their outcomes.

Staff training and staff induction is prioritised across each academic year.

Senior leaders ensure that teachers are aware of the analysis that they are expected to carry out following each assessment submission. Therefore, there is a sharp focus on ensuring that all staff understand how to interpret the data for their teaching sets and can talk confidently about it. This way, conversations about standards can be more searching and can perhaps result in more effective intervention strategies and given appropriate resource distribution.

At the teacher level, external validation is used to arrive at predicted grades for students. Mock examinations are constructed carefully, ensuring that all assessment objectives are covered as per an examination paper.

They use their data quickly and effectively to maximise the impact on the learning happening in their classrooms. For example, if progress grades indicate that students who are targeted to achieve a grade B are falling short, then they might ask themselves if they have done everything that they can to ensure that they have equipped students to achieve this grade. Have they supplied students with model B grade answers for example, or developed the examination techniques among their students that are necessary for them to achieve at this level?

And that support for students comes in too many ways that can be listed here. A skilled teacher will ensure that their students are prepared fully for their examinations. Students have been mentored across the year, clear of what they can achieve and clear on how they might reach that goal. They will have had modelled answers, detailed and constructive feedback from assessments, and regular checks on progress. Examination skills will have been integrated into lessons with regular opportunities to practice these against past paper questions. In the lead up to the examinations, content and skills are revised, re-tested and reflected on. Students are put at the heart of their own learning.

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