ONEGRADE

OneGrade DELTA USER GUIDE

DELTA first released with OneGradePlus version 1.37

June 2024

Update v1.40 June 2025 – Page 12 (Delta Category – Is External Data Source? Flag)

Contents

Introduction

The purpose of the OneGrade DELTA module is to:

- Allow colleges to analyse information across a wide range of 'DELTA categories' relating to student performance - for example attendance, work completion, progress or behaviour. There are up to 20 categories, 12 of which are system defined and 8 college defined.
- Rebase the raw data for each DELTA category into a scale from 0 points (representing the worst case scenario) to 100 points (best case scenario).
- Create an overall DELTA score of 0-100 for each student based on a weighted average of each category, with the weighting allowing colleges to prioritise certain categories over others.
- Capture, store, present and analyse DELTA scores for each student (for each category and overall weighted average) on a weekly basis.
- Quickly identify students with low or declining performance based on the overall and category scores, including trends in how those scores may be changing over time.
- Allow analysis of weekly scores at all levels e.g. by individual student, teaching group, course, subject area, department, faculty etc.
- View DELTA scores alongside contextual 'flags' which give a fuller picture e.g. whether students are looked after, are a carer, have higher needs or are receiving additional support.
- View meetings with students or other interventions in order to determine whether effective action is being taken to improve student performance.

DELTA Categories

The DELTA system includes a total of 20 categories, 12 of which are system defined and the other 8 are 'custom' and can be defined by individual colleges. The DELTA categories are:

Category 1	Attendance
Category 2	Punctuality
Category 3	Progress
Category 4	Work Outstanding
Category 5	Reduced Duration
Category 6	Exceptional Entry
Category 7	Student Survey
Category 8	Work Placement
Category 9	Enrichment and Entitlement
Category 10	Comments
Category 11	Behavioural
Category 12	Employability Skills
Categories 13-20	College Defined

DELTA Schematic – Quick Overview
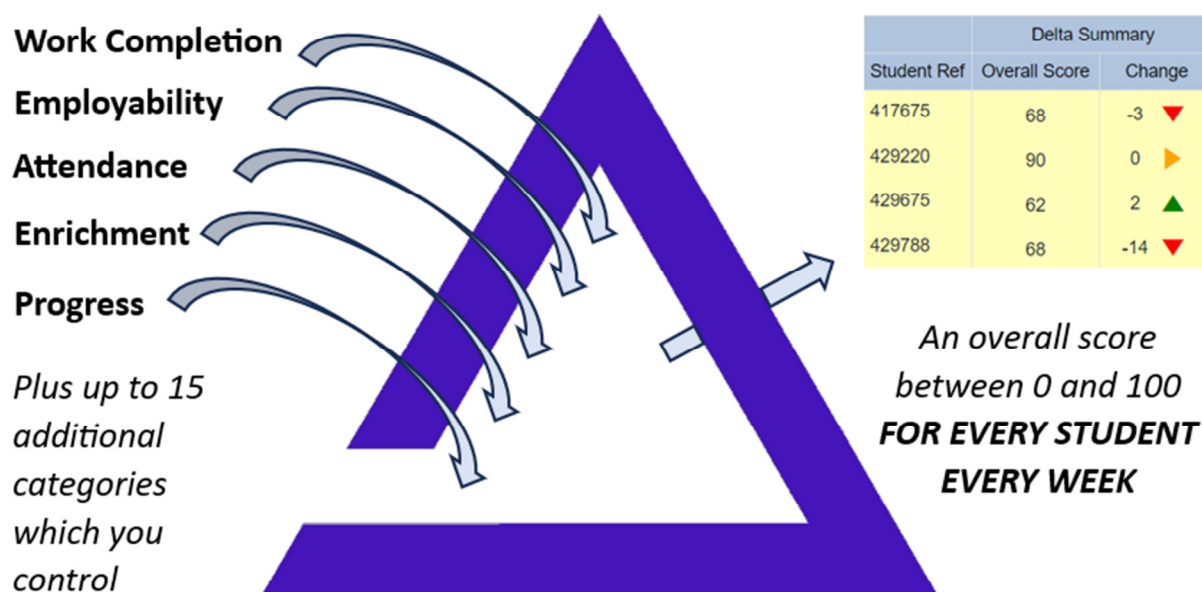
The diagram above shows how up to 20 DELTA categories can be used to generate an overall DELTA score for each student each week. For example a student might have the following raw data:

95% attendance, 100% punctuality, progress above target, 1 non-submission, 40 enrichment hours.

These are raw DELTA category 'values' which might be translated into DELTA category scores thus:

Category	Raw Value	Source	Rebased Score	Comment
Attendance	95%	Registers	70	Reasonable
Punctuality	100%	Registers	100	Best possible
Progress	Above target	In-year grade	100	Best possible
Non-submissions	1	Markbook	50	Some concern
Enrichment	40 hours	ILP data	60	Just below expected

Hence a raw average overall DELTA score would be (70+100+100+50+60)/5 = 76

However if the college wishes to prioritise attendance and work submission they may for example give those categories a weighting of 2.0 as opposed to 1.0, in which case the weighted overall DELTA score would be *sum(category score x weighting)/total weighting*

 = ((70 x 2) + (100 x 1) + (100 x 1) + (50 x 2) + (60 x 1)) / 7 = 71

As you can see in this simple example, the extra weighting given to attendance and work submission means that the lower than average scores for those categories brings down the student's overall average after the weighting is applied. In this way colleges can prioritise key areas of student performance.

Example of the DELTA Scoring System

The data relating to different DELTA categories will be held in many different forms e.g.:

- Attendance and Punctuality – expressed as percentage figures from the register system.
- Work completion – expressed as a number of assessments outstanding from a markbook.
- Progress against target – expressed as above/on/below target from OneGrade.
- Behaviour – based on meetings logged on a student's ILP e.g. disciplinaries.
- Enrichment or Work Placement– based on a number of hours logged on a student's ILP.
- Student perception or employability skills – may be based on a survey in a student's ILP.
- Late starting students – based on a student start date compared with course start date.
- Exceptional Entry -may be a 'yes or no' judgement based on entry qualifications.

DELTA Values

In their raw form as described above, data from the various DELTA categories are referred to as

'DELTA VALUES'

e.g. a student may have DELTA values as follows:

Attendance : 93%
Punctuality : 97%
Work completion : 2 (pieces of work outstanding)
Progress vs target : -1 (below target)
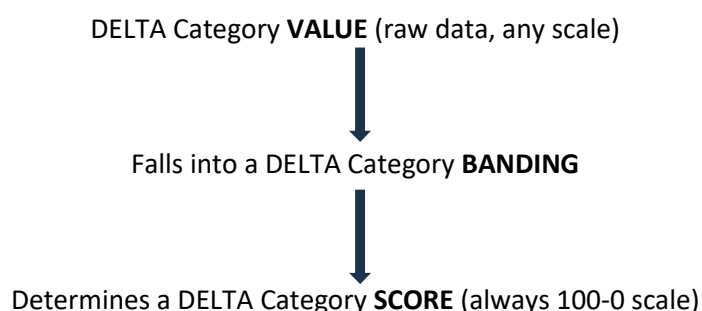Enrichment : 15 (hours recorded on ILP)
Behaviour : stage 1 (verbal warning recorded)
Student Perception of course : 7 (on a scale of 0-10 where 10 is most positive)

Note that DELTA Values can exist in a wide variety of scales depending on the category.

Hence we need a mechanism to translate data from different sources and held in a variety of different scales into a universal 100 (best case) to 0 (worst case) range.

The mechanisms we use to achieve this are called 'DELTA Category Bandings' and 'DELTA Scores'

DELTA Category **VALUE** (raw data, any scale)

⬇

Falls into a DELTA Category **BANDING**

⬇

Determines a DELTA Category **SCORE** (always 100-0 scale)

DELTA Category Bandings

DELTA Category Bandings describe how we separate different raw values within a category, for example we might have bandings for attendance from best to worst:

99-100% ; 97-99% ; 93-97% ; 88-93% ; 82-88% ; 75-82% ; 70-75% ; less than 70%

These bandings and their associated scores are all fully configurable by individual colleges.

DELTA Scores

DELTA Scores allow the raw data of DELTA Values to be translated into a universal score of 100-0 where 0 always represents the worst case and 100 the best case scenario e.g. for the DELTA category 'Attendance' we make the following translation between raw DELTA values (actual percentage attendance) and the DELTA score (100-0 points):

DELTA CATEGORY : Attendance

CATEGORY VALUE BANDING	DELTA SCORE
Attendance 99-100%	100
Attendance 97-99%	90
Attendance 93-97%	70
Attendance 88-93%	40
Attendance 82-88%	15
Attendance 75-82%	10
Attendance 70-75%	5
Attendance below 70%	0

Note that in the case of the DELTA categories of 'Attendance' and 'Punctuality', the raw values and the DELTA scores are both on a scale from 0 to 100. However, the relationship between values and scores can be seen to be non-linear and in our example above the score drops off steeply after attendance drops below 93%. The bandings and scores can be modified, allowing colleges to control how the DELTA scores generated relate to the raw values recorded against students.

The bandings are even more crucial in the case of categories where the raw data values are not on a scale of 0-100 (i.e. categories other than Attendance and Punctuality). For example if we consider how to deal with non-submission of assessments, the raw data will be a simple count – 1,2,3,4,5, etc.

Hence for the DELTA Category 'Outstanding Assignments' we need to relate values to scores thus:

DELTA CATEGORY : Outstanding Assignments

CATEGORY VALUE BANDING	DELTA SCORE
0 Outstanding Assignments	100
1 Outstanding Assignment	50
2 Outstanding Assignments	10
3 or more Outstanding Assignments	0

Here we can see how any measurable set of values (in this case 0, 1,2, 3 or more) can be translated into a scale of DELTA scores from 0 to 100. This rebasing to the 0-100 scale allows us to do direct comparisons between categories and to create an overall weighted DELTA score average for each student on the same 0-100 scale.

DELTA Overall Score and Category Weighting

Students' overall DELTA scores are calculated each week based on a weighted average of their individual DELTA category scores. The weightings of each category can be adjusted by a college in order to prioritise given categories in the overall calculation. For example, if attendance and work submission are particular priorities, these may be given a weighting of 2.0 (or more), while the weighting of other categories may be left at 1.0 or even reduced to a value of 0.5 or less.

So a simple example would be:

DELTA CATEGORY	WEIGHTING	STUDENT CATEGORY SCORE
Attendance	2.0	70
Punctuality	1.0	90
Work Submission	2.0	50
Student Survey	1.0	90

Straight average of the category scores would be (70+90+50+90)/4 = 75

However the weighted average in this case would produce an overall DELTA score of

$$\frac{(2.0 \times 70) + (1.0 \times 90) + (2.0 \times 50) + (10 \times 90)}{6.0} = 70$$

Although the straight average of the category scores would be 75, the student's overall score is reduced by the increased weighting of the categories 'Attendance' and 'Work Submission'.

Worked Examples

Consider students with the following category values:

Example 1 – higher performing student

Category	Raw Value	Best case value	Source	Score	Weighing
Attendance	100%	100%	Registers	100	3.0
Punctuality	100%	100%	Registers	100	1.0
Progress	Above target	Above target	In-year grade	100	2.0
Non-subs	0	0	Markbook	100	3.0
Enrichment	40 hours	60 hours	ILP data	60	0.5
Comments	Positive	Highly positive	ILP data	80	1.5
Behaviour	No actions	No Action	ILP	100	1.0

The total DELTA score for this student would be:

(100 x3) + (100 x 1) + (100 x 2) + (100 x 3) + (60 x 0.5) + (80 x 1.5) + (100 x 1.5) = 1150

The overall weighted average DELTA score is 1150 divided by the total weighting = 1150/12 = **96**

As this student has either optimum or very high scores in all categories, their overall score is close to 100. The only categories where they score less than 100 (Enrichment and Comments) are not so highly weighted as other categories where they score more highly, hence they have a smaller effect on the overall score.

Example 2 – mid performing student

Category	Raw Value	Best case value	Source	Score	Weighing
Attendance	94%	100%	Registers	70	3.0
Punctuality	92%	100%	Registers	40	1.0
Progress	On target	Above target	In-year grade	75	2.0
Non-subs	1	0	Markbook	50	3.0
Enrichment	30 hours	60 hours	ILP data	50	0.5
Comments	Neutral	Highly positive	ILP data	60	1.5
Behaviour	Verbal warning	No Action	ILP	50	1.0

The overall weighted average DELTA score is 715 divided by the total weighting = 715/12 = **60**

This student scores fairly averagely across all categories and their overall weighted score is bolstered slightly by higher scores in two more heavily weighted categories (Attendance and Progress).

Example 3 – lower performing student

Category	Raw Value	Best case value	Source	Score	Weighing
Attendance	80%	100%	Registers	10	3.0
Punctuality	90%	100%	Registers	40	1.0
Progress	Below target	Above target	In-year grade	0	2.0
Non-subs	3	0	Markbook	0	3.0
Enrichment	5 hours	60 hours	ILP data	20	0.5
Comments	Negative	Highly positive	ILP data	20	1.5
Behaviour	1st formal warning	No Action	ILP	10	1.0

The overall weighted average DELTA score is 120 divided by the total weighting = 120/12 = **10**

This student scores poorly across all categories and their overall weighted average is reduced to a larger extent by their low scores in highly weighted categories (Attendance and Non-submissions).

Managing Categories and Bandings in the OneGrade Admin System

Main DELTA Menu

The DELTA system is managed and configured in OneGrade client via this top-level menu:
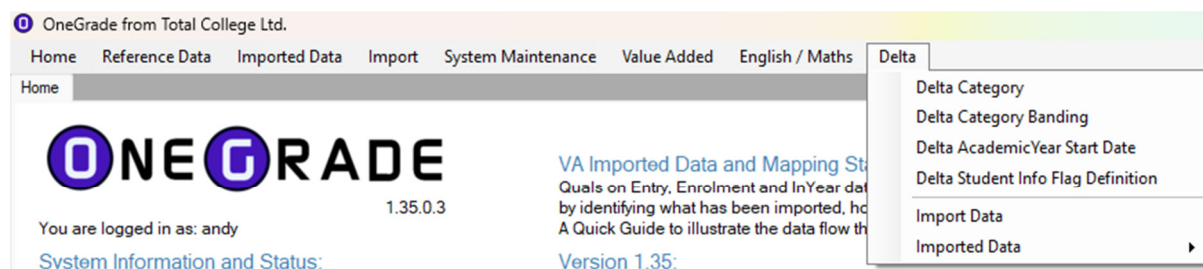
DELTA Categories

Use the 'DELTA Category' screen to manage:

- Which categories are Active (i.e. included in your DELTA analysis).
- The weighting of each category (relative contribution to the overall average DELTA score).
- Whether the datasource for the category is external or internal.
- Whether the category contributes to the score which students see, as well as the main score
- The order in which categories are displayed in OneGrade Plus:

		System Name	Display Name	Short Display Name	Weighting	Is Active?	Is Fixed?	Is External DataSource?	Contribute to Student Score?	Order By (Order Displayed in OneGradePlus)
▶	Details	Attendance	Recent Attendance	Att	3.00	True	True	True	True	1
	Details	Punctuality	Recent Punctuality	Punc	1.00	True	True	True	True	2
	Details	Progress	Progress versus target	Prog	2.00	True	True	False	True	3
	Details	WorkOutstanding	Outstanding Assignments	O/S Work	3.00	True	True	True	False	4
	Details	ReducedDuration	Reduced Duration	Red Durtn	1.00	True	True	True	False	5
	Details	ExceptionalEntry	Exceptional Entry	Except Ent	1.00	True	True	True	False	6
	Details	StudentSurvey	Student Survey	Survey	1.00	True	True	True	False	7
	Details	WorkPlacement	Work Placement Status	Wk Placement	0.50	True	True	True	True	8
	Details	EnrichmentEntitlem...	Enrichment and Entitlement	Enrichment	0.50	True	True	True	True	9
	Details	Comments	Comments	Comments	2.00	True	True	True	True	10
	Details	Behavioural	Behavioural	Behavioural	2.00	True	True	True	False	11
	Details	EmployabilitySkills	Employability Skills	Emp Skills	1.00	True	True	True	True	12
	Details	User1	User1	User1	0.00	False	False	True	False	13
	Details	User2	User2	User2	0.00	False	False	True	False	14
	Details	User3	User3	User3	0.00	False	False	True	False	15
	Details	User4	User4	User4	0.00	False	False	True	False	16
	Details	User5	User5	User5	0.00	True	False	True	False	17
	Details	User6	User6	User6	0.00	False	False	True	False	18
	Details	User7	User7	User7	0.00	False	False	True	False	19
	Details	User8	User8	User8	0.00	False	False	True	False	20

20 rows

Recalculate Delta Scores — Academic Year 23/24 — If any change is made to a Category (Weighting, IsActive), re-calculate Delta Scores

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Use the 'Details' button to open and modify the settings for any category:

Categories flagged as 'Is Active' will be displayed and included in the overall DELTA score calculation.

These are the category label and tooltip which will be displayed in the OneGrade Plus system.

The weighting of the category in the overall DELTA score calculation.

If the "Is External DataSource?" is unticked, then the information is available from within OneGrade. For the "Progress" Delta Category, if the "Is External DataSource?" is unticked, whenever the Latest InYear Grade is saved for an enrolment, the "Progress" Delta Category for the student (and enrolment information) shall be updated. This will only be updated for the current academic year and the current week.

The DELTA system contains a set of data which is specifically for students to view (e.g. via a student ILP or data dashboard). This flag allows you to control whether the category will be included in the calculation of the separate 'Student' score, whereas staff will always see all active categories in their view of the DELTA data.

Link directly to the bandings within that category by clicking 'Maintain Bandings for this Category'.

The IsExternalDataSource? Flag may be set to false for the Progress, WorkOutstanding and EmployabilitySkills Categories. Progress is populated by updating InYearGrades within OneGradePlus. EmployabilitySkills is populated by updating the Skills withinOneGradePlus (ensure that the Skills question values in OneGradePlus use the same scale as the Employability Category Banding Values). WorkOutstanding is populated by a Scheduled Job executed by the OneGrade Import Service – and is based on Markbook Outstanding Assessments (i.e. Assessments with no Marked Date).

DELTA Category Bandings

The bandings within each DELTA category are used to translate raw data into a score of 0-100 for each category, as explained in the introduction. Hence you can alter bandings to affect how the universal 0-100 scale relates to the raw imported student data in each category:

You can use the 'New' and 'Delete' buttons to add or remove bandings in any category, or the 'Details' button to modify any existing banding:

Viewing Delta Scores in OneGrade Plus Web System

Whenever you import DELTA data or change the category weightings and/or bandings, you can view the effect of changes in the DELTA scoring system in the OneGrade Plus Web system.

From a student group, go to the DELTA tab and the data can be seen on the 'Students' tab:

Student ...	Surname	Forenames	Overall Score	Change	Att	Punc	Prog	O/S Work	Survey	Wk Place...	Enrichment	Comments	Behavioural
434080	Adams	Leon	65	7 ▲	40 ▶	40 ▶	100 ▲	100 ▶	80 ▶	0 ▶	40 ▶	60 ▲	100 ▶
448999	Adams	Nikyta-Skye	48	-16 ▼	15 ▼	70 ▶	0 ▼	100 ▶		0 ▶	40 ▶	70 ▲	100 ▶
443935	Anderson	Josh	57	-11 ▼	15 ▼	100 ▶	0 ▼	100 ▶	80 ▶	0 ▶	40 ▶	60 ▲	100 ▶
444022	Benbow	Albert	62	-2 ▼	70 ▲	40 ▼	100 ▲	100 ▶		0 ▶	40 ▶	40 ▼	100 ▶
449974	Brooks	Albert	76	4 ▲	70 ▶	100 ▶	100 ▲	100 ▶	80 ▶	0 ▶	40 ▶	50 ▲	100 ▶
451389	Charnley	Nataliia	64	-17 ▼	70 ▼	100 ▶	0 ▼	100 ▶		0 ▶	40 ▶	100 ▲	100 ▶
451530	Connor	Helena	63	-13 ▼	10 ▼	70 ▼	100 ▲	100 ▶	80 ▶	0 ▶	40 ▶	50 ▼	100 ▶

The DELTA scores are shown by default, or you can select 'Values' to see the raw data values:

Student ...	Surname	Forenames	Overall Score	Change	Att	Punc	Prog	O/S Work	Survey	Wk Place...	Enrichment	Comments	Behavioural
434080	Adams	Leon	65	7 ▲	90.60	89.60	1.00	0.00	3.33	0.00	32.00	-0.97	0.00
448999	Adams	Nikyta-Skye	48	-16 ▼	86.60	93.10	-1.00	0.00		0.00	32.00	-0.59	0.00
443935	Anderson	Josh	57	-11 ▼	86.30	100.00	-1.00	0.00	4.00	0.00	32.00	-0.87	0.00
444022	Benbow	Albert	62	-2 ▼	94.10	91.70	1.00	0.00		0.00	32.00	-2.47	0.00
449974	Brooks	Albert	76	4 ▲	94.00	100.00	1.00	0.00	3.50	0.00	32.00	-1.22	0.00
451389	Charnley	Nataliia	64	-17 ▼	95.90	100.00	-1.00	0.00		0.00	32.00	0.29	0.00
451530	Connor	Helena	63	-13 ▼	80.40	95.10	1.00	0.00	3.83	0.00	32.00	-1.53	0.00

You can also select 'Change' to see the difference against a given number of weeks previously:

Student ...	Surname	Forenames	Overall Score	Change	Att	Punc	Prog	O/S Work	Survey	Wk Place...	Enrichment	Comments	Behavioural
434080	Adams	Leon	65	7 ▲	0 ▶	0 ▶	25 ▲	0 ▶	0 ▶	0 ▶	0 ▶	40 ▲	0 ▶
448999	Adams	Nikyta-Skye	48	-16 ▼	-25 ▼	0 ▶	-75 ▼	0 ▶		0 ▶	0 ▶	20 ▲	0 ▶
443935	Anderson	Josh	57	-11 ▼	-25 ▼	0 ▶	-75 ▼	0 ▶	0 ▶	0 ▶	0 ▶	10 ▲	0 ▶
444022	Benbow	Albert	62	-2 ▼	30 ▲	-30 ▼	25 ▲	0 ▶		0 ▶	0 ▶	-10 ▼	0 ▶
449974	Brooks	Albert	76	4 ▲	0 ▶	0 ▶	25 ▲	0 ▶	0 ▶	0 ▶	0 ▶	10 ▲	0 ▶
451389	Charnley	Nataliia	64	-17 ▼	-20 ▼	0 ▶	-75 ▼	0 ▶		0 ▶	0 ▶	10 ▲	0 ▶
451530	Connor	Helena	63	-13 ▼	-80 ▼	-20 ▼	25 ▲	0 ▶	0 ▶	0 ▶	0 ▶	-10 ▼	0 ▶

Note that the default trend is against 4 weeks previously, but you can change this value if desired.

Clicking on an arrow against a student in the overall change column gives a graph showing the overall DELTA score over time, along with any interventions which have been imported:

Weekly Delta Overall Scores : Megan Islam (446845)

Overall Score Change over the last 4 weeks is: 39 (Week 11) - 33 (Week 7) = 6

Display Category Please Select...

Interventions

Intervention #	Date of Intervention	Week No	Information	Course
1	27/09/2023	4	1:1 Careers Interview	n/a n/a
2	29/09/2023	4	Stage 1 - First Formal Warning	n/a n/a
3	10/10/2023	6	Stage 2 - Second Formal Warning	n/a n/a

Clicking on an arrow against a student in a specific category column gives a graph showing the trend in that category's DELTA score over time, along with a key showing the category bandings:

Weekly Delta Scores : Category Recent Attendance - Albert Benbow (444022)

Delta Category Bandings

Key	Delta Score	Delta Score Name	Minimum Value	Maximum Value
	100	Attendance 99-100%	99.00	100.00
	90	Attendance 97-99%	97.00	98.99
	70	Attendance 93-97%	93.00	96.99
	40	Attendance 88-93%	88.00	92.99
	15	Attendance 82-88%	82.00	87.99
	10	Attendance 75-82%	75.00	81.99
	5	Attendance 70-75%	70.00	74.99
	0	Attendance below 70%	0.00	66.99

DELTA Contextual Flags

Colleges often hold a great deal of information about students which may be relevant in your interpretation of their performance. This includes factors such as whether a student is receiving additional learning support, has additional needs, is a carer, or was an exceptional entry. This data can be difficult to translate into a DELTA category for the purposes of the overall DELTA score, but is nonetheless useful to view while interpreting DELTA data. The DELTA system allows you to import up to 18 'Flags' (twelve 'yes/no' flags and six text strings), controlled here in the OneGrade client:
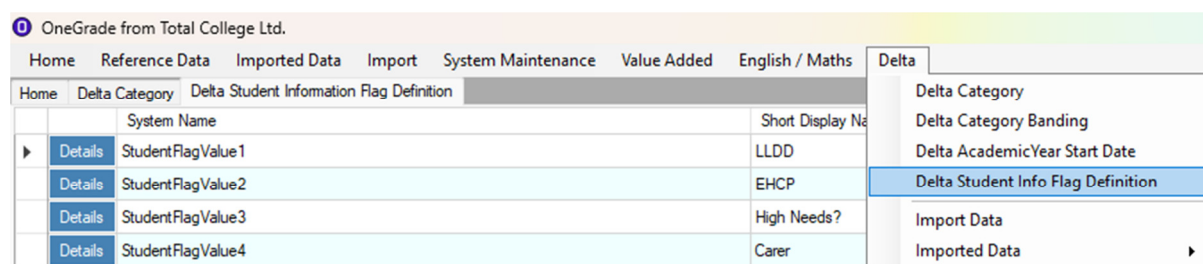
To maintain the name and visibility of a given flag, click on the 'Details' button for that row:
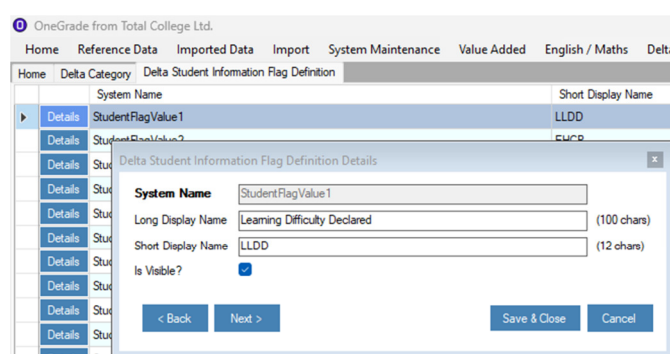
Flags set to visible are then displayed to the right of the DELTA category data in OneGrade Plus:

If a meeting type 'DELTA review' is set up in ProMonitor, the latest date for this meeting with each student could be imported as one of the six text flags. This then provides clear evidence that action is being taken to address issues arising from analysis of the DELTA data.

DELTA Interventions

The DELTA system allows colleges to import a list of 'interventions', which are typically meetings held with students and which are often held in students' electronic Individual Learning Plans' (ILPs).

As you can import the date of the intervention, an optional course code to link to an enrolment, and up to 1500 characters of text, this allows you to evaluate whether the meetings you are holding with students are having an impact on improving their performance (and hence their DELTA score).

Click on the change arrow against a student's overall DELTA score here:

Interventions are then clearly shown as pink 'nodes' on the graph of DELTA scores over time:

Weekly Delta Overall Scores : Megan Islam (446845)
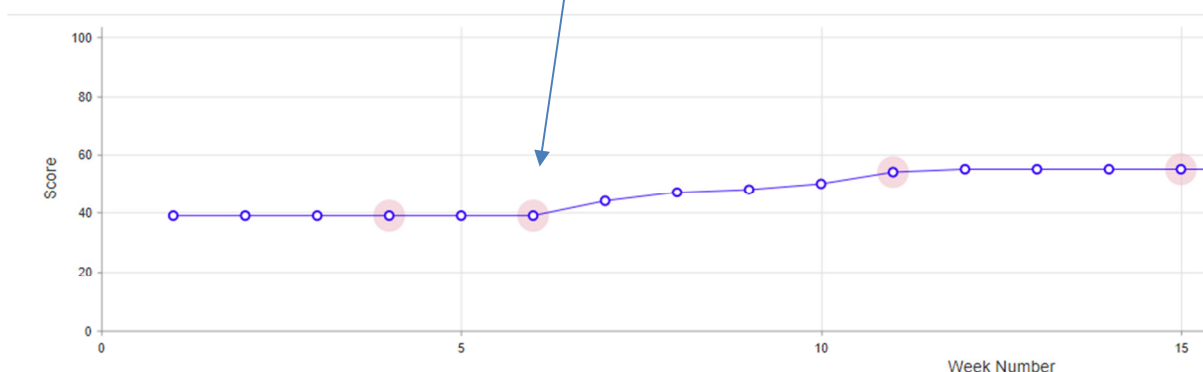
Overall Score Change over the last 4 weeks is: 68 (Week 20) - 55 (Week 16) = 13

	Student		Delta Summary		Att	Punc	Prog	O/S Work
Student Ref	Surname	Forenames	Overall Score	Change				
446845	Islam	Megan	68	13 ▲	0 ▶	10 ▶	75 ▶	100 ▶

Interventions

Intervention #	Date of Intervention	Week No	Information
1	27/09/2023	4	1:1 Careers Interview
2	29/09/2023	4	Stage 1 - First Formal Warning
3	10/10/2023	6	Stage 2 - Second Formal Warning
4	16/11/2023	11	Stage 3 - Final Formal Warning
5	13/12/2023	15	One to One

At the bottom of the same page you can also view a tabular list of those interventions with relevant information also displayed.

DELTA Enrolment Level Information

The DELTA data explained thus far is held at 'student level' i.e. the data takes into account all of a student's individual enrolments and is aggregated to the level of the student overall. This is necessary in order to make the DELTA system manageable, but can raise questions if a student is enrolled on several individual courses – especially if the student's performance varies considerably from course to course.

In order to help staff examine where specific problems may lie, DELTA also allows data at specific 'enrolment level' (i.e. course by course) to be imported and viewed.

This data is then available on the 'Enrolments' tab in the DELTA screen.

Clicking the 'All Courses' tickbox displays data for other enrolments for the same students:

In the example above we can see that the second student in the list has considerably lower attendance in GCSE Maths than in their main qualification. This is important as it helps to explain why they have a low overall DELTA attendance score, even though their attendance in their main qualification is relatively high:

Linking to External Systems (e.g. Individual learning Plans – ILPs)

To enable staff to view more detailed student information if required, the DELTA page has a link which can be configured to open third party systems containing data relating to a student.
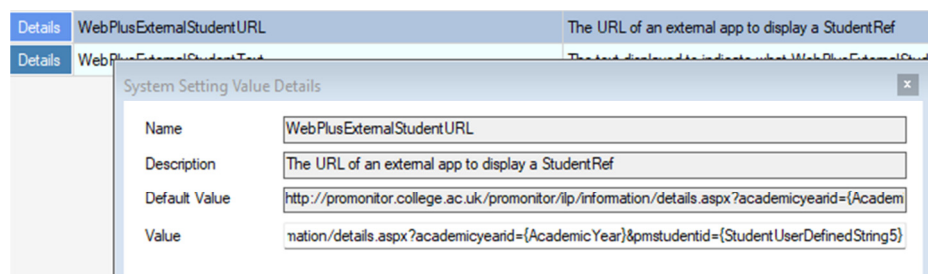
Hovering over the 'photo icon in the left hand column displays this tooltip:
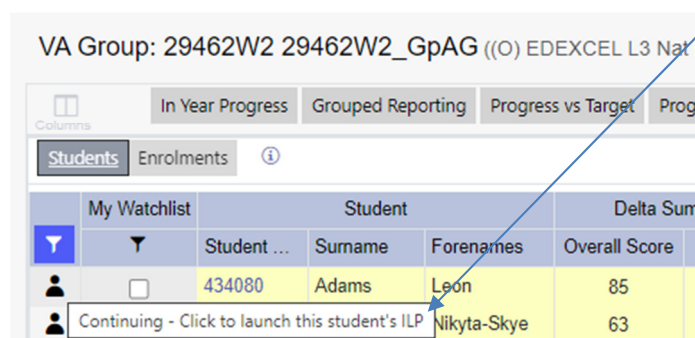
Clicking the icon will then pass you to an external URL which you can configure in OneGrade client:
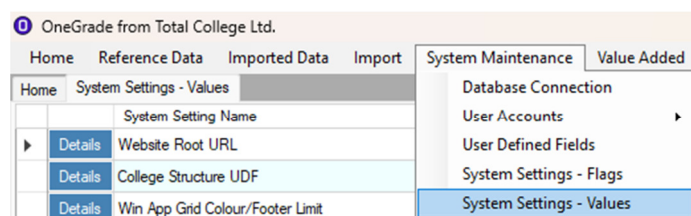
Click on Details of the row named 'WebPlusExternalStudentURL' to edit the URL string:

I linking to an encrypted ID , they can be imported to a UDF which is then defined at the end of the URL string above. For an example:

http://ILPsystem.college.ac.uk/ilp/information/details.aspx?academicyearid= {AcademicYear}&pmstudentid={StudentUserDefinedString5}

Ensure that the UDF used is set as
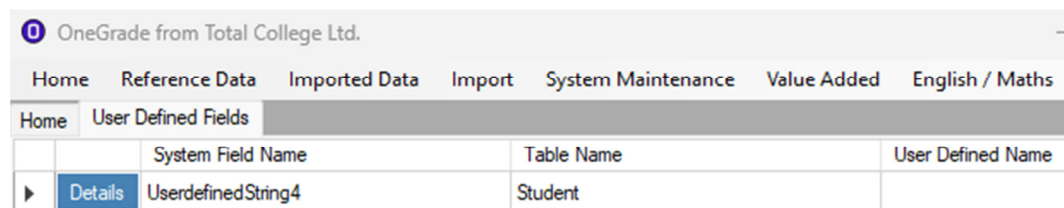
DELTA Student View

Colleges may wish to allow students to view their DELTA scores and trends. If students log into OneGrade Plus, they will see tabs relating to their enrolment(s) plus the DELTA tab:

The DELTA tab will display the category scores plus the overall DELTA score and trend.

However, the overall score that students see is based only on those categories which are flagged to be included in the student score in the OneGrade client system:

The students' DELTA scores are held in separate columns in the OneGrade database, which enables you to access them if you wish to publish them via an internal college application or dashboard:

```
SELECT [studentref]
      ,[AcademicYearID]
      ,[Latest_Data_Week]
      ,[Latest_Data_Date]
      ,[Latest_Data_Score]
      ,[Latest_Data_StudentScore]
  FROM [OneGrade].[dbo].[Delta_Student_Score]
```

	studentref	AcademicYearID	Latest_Data_Week	Latest_Data_Date	Latest_Data_Score	Latest_Data_StudentScore
1	437226	23/24	22	2024-01-30 00:00:00.000	88	77

Reporting on DELTA Data

Firstly, the main grid on the DELTA page may be exported to Excel using the button at top right:
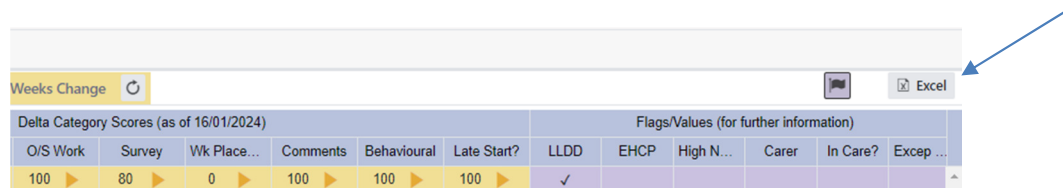
This produces a well formatted sheet in Excel as below:

More importantly however, DELTA has a dedicated reporting screen in the main left hand menu:

This gives a screen which can be filtered, sorted an exported to produce many useful DELTA reports:

Getting started with the DELTA module

The DELTA module is an integrated part of the wider OneGrade system.

1. To activate the DELTA module, enter a **DL** licence key into OneGrade using the licence key maintenance facility from "System Maintenance" on the main menu.
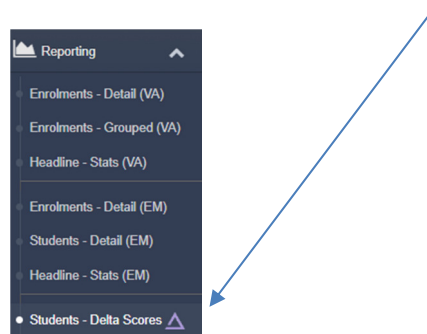
2. Decide which DELTA categories you wish to include in your analysis – this will depend upon the availability of suitable data from your MI system and/or student tracking system, as well as the priorities of the college.

3. Check/modify the 'DELTA Academic Year Start Date' which will determine the start date for Week 1 and therefore all subsequent weeks for the DELTA analysis in each academic year:

4. Ensure categories to be included in your analysis are set to 'Is Active' = 'True' in the DELTA Category screen and check/modify the weightings of the categories according to your priorities:

Initially all of the categories will be set to 'Is External DataSource?' = 'True' except for **Progress** which by default will use internal data from within OneGrade Plus (i.e. students' in-year grades):

		System Name	Display Name	Short Display Name	Weighting	Is Active?	Is Fixed?	Is External DataSource?
▶	Details	Attendance	Recent Attendance	Att	4.00	True	True	True
	Details	Punctuality	Recent Punctuality	Punc	3.00	True	True	True
	Details	Progress	Progress versus target	Prog	3.00	True	True	False

5. Check/modify the Category Bandings which will apply to each active category in the 'DELTA Category Banding' screen:

6. Check the settings for the Student Information 'Flags' which will appear in the web system along with the DELTA scores:

7. Prepare import datasets for Student Values, Enrolment Information, Student Interventions and Student Information Flags. We recommend that these are imported directly from tables/views within SQL Server, due to the need to update the data within OneGrade on a weekly basis.

8. Once data has been imported it will be automatically summarised within OneGrade and can be viewed in both the OneGrade Plus web application and in the summary screens in OneGrade client:

Data Imports

To import DELTA data open the screen below in the OneGrade client system:
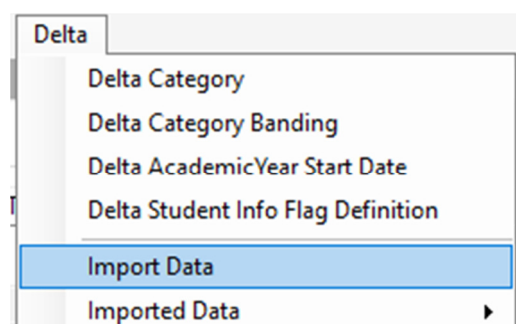
Four DELTA data import options are then available:
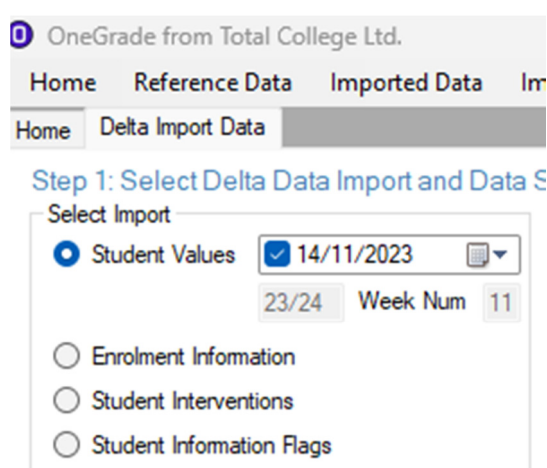
Student Values – this is the main DELTA import which brings in the raw values for each of the categories which you wish to analyse. These are automatically translated into DELTA Scores for each student in each active DELTA Category (i.e. NOT at specific enrolment level).

Enrolment Information – you can add similar data for each category for specific student enrolments, allowing staff to gain a better insight into where problems might be occurring. Enrolment information is not translated into DELTA Scores, but can be viewed in a separate tab for context.

Student Interventions – these would typically be records of meetings with student held in your ILP system, which can be imported in order to view whether actions are improving student performance.

Student Information Flags – are indicators of relevant student contextual information such as whether they were a late starter or exceptional entry (which are also DELTA Categories), or whether a student has high needs, ALS or an EHCP (which would not be included in the DELTA Categories). The flags are designed to give further detailed contextual information to staff who are analysing DELTA data.

What Data Should I import? – General Advice

The main import to concentrate on first is the "Student Values" data import. The "Student Values" data is the value for the Delta Category for the student, for a particular week.

Typically, Attendance, Punctuality, Late Start would come from the MI System. Student Survey would come from a Survey system, Work Outstanding from a Markbook System. Other measures such as Exceptional Entry, Enrichment, Employability and Comments would come from an ILP System.

If using OneGrade Plus to record InYear Progress, you can use this to provide the information for the "Progress" Delta Category (Above, Below and At Target).   In this case, it is best to set the "Progress" Delta Category to Is External? = False. The "Progress" category will then be updated automatically when the InYear Grades are saved within OneGrade Plus. See the earlier "Delta Categories" section in this document for more information.

The DELTA 'Progress' Category will show whether a student is above/on/below target for any enrolment, whether the course is in the VA, English or Maths section.

However, for English and Maths courses, the DELTA progress value and score will not be an exact match against score on the In-Year Progress tab.

The In-Year Progress score for English & Maths qualifications is a measure against starting point, hence a student with an in-year grade 3 against a starting point of grade 3 will show 0 for their in-year progress score, and in-year grade 4 will give a progress score of +1.

DELTA measures current grade against TARGET, so that same student will have a target of 4 and an in-year grade 3 will be treated as being below target, in-year grade 4 as on target.

The remaining Enrolment Information, Interventions and Information Flag imports are valuable information to support the Student Delta Values import.

The Delta Imports rely on the existing Student and Enrolment imports already established for the Value Added and English/Maths modules. It is therefore important that you regularly import the Student and Enrolment information to support the Delta Imports.

All imports should typically be done on a weekly basis. That way, the Student Delta Score change can be measured over a recent time frame to identify those students whose Delta Score may be dropping or rising the fastest – and to see the response to interventions such as meetings with students.

When reviewing Delta scores on a departmental or college-wide scale, it is essential that the student can be easily identified and located. To do this, we recommend that you utilise the Student User Defined fields in the Student Imports to record information such as Main Course, Main Department, Mode of Attendance and Personal Tutor for example.

Specific Details Regarding the Student Values Import

The Student Values import is of prime importance due to the fact that it:

- Brings in all of the raw DELTA category values for each student
- Triggers the generation of DELTA category scores (based on the category bandings)
- Triggers the generation of the overall weighted average DELTA score
- Needs to be run each week to get a full view of student DELTA scores over time

There are 12 system DELTA categories – in summary:

ID	DELTA Category System Name	Default Weighting	Default Internal or External data?	Expected Source
1	Attendance	3.0	External	MIS register data
2	Punctuality	1.0	External	MIS register data
3	Progress	2.0	Internal	OneGrade in-year grades
4	Work Outstanding	3.0	External	Markbook Assessment data
5	Reduced Duration	1.0	External	MIS course/enrolment data
6	Exceptional Entry	1.0	External	MIS student flag
7	Student Survey	1.0	External	Survey database or ILP
8	Work Placement	0.5	External	WP tracking system
9	Enrichment & Entitlement	0.5	External	Enrichment database or ILP
10	Comments	2.0	External	Comments on ILP
11	Behavioural	2.0	External	Meetings on ILP
12	Employability Skills	1.0	External	Skills survey data

Category 1 – Attendance

Most importantly, this should only be attendance for the previous week, imported on a weekly basis. This allows patterns of changes in attendance over time to be tracked. In SQL terms, the 'DATEDIFF' function may be used to identify registers with dates less than a week old. A college may have existing SQL data views (e.g. for importing attendance data into dashboards or ILP systems), which can be re-used or adapted to suit.

Typical values: import overall percentage attendance for the previous week

Category 2 - Punctuality

The same advice applies to this category as for Category 1 above, but using punctuality data.

Typical values: import overall percentage punctuality for the previous week

Category 3 – Progress

By default this is the only category (at the time of writing, January 2024) which is set by default to use an internal datasource. In practical terms this means that if your staff are using OneGrade Plus to record in-year grades against target, this DELTA category will update automatically when in-year data is saved. However, the option exists to switch to an external data source and import progress

in the form of above/on/below target for each student (either for their main enrolment or aggregated across all enrolments), if held in that format in a separate system.

Typical values:

Progress	Value
Above target (aggregate of all enrolments)	+1 or more
On target (aggregate of all enrolments)	0
Below target (aggregate of all enrolments)	-1 or less

Category 4 – Work Outstanding

This can be imported wherever a college has a markbook or similar system containing records of assessment due dates, as well as, for example, a flag which remains unticked to denote that students have not completed specific pieces of work. Obviously this should only include assessments with a due date which is today's date or earlier; furthermore most colleges allow a 2 week 'period of grace' for work to be marked and recorded in their system.

Typical values – import a total of outstanding assessments across all enrolments – 0, 1, 2, 3, 4 etc

Category 5 – Reduced Duration

'Reduced Duration' is a method to produce a DELTA score for students who either start their course(s) late or for some other reason cannot engage in the full duration of guided learning hours for their course(s). It can be calculated by working out the difference (in days) between the course start and end dates, and then the difference between a specific student's start and end dates. The actual number of days of study can then be worked out as a proportion of potential days of study.

For example if a course runs from 04/09/2023 to 21/06/2024, then that is a duration of 292 days.

However if a student joins the course on 25/09/2023, then their duration is only 271 days.

271/292 = 92.8%

Typical values - import % as above, calculated for each student (aggregated across all enrolments).

Category 6 – Exceptional Entry

It's anticipated that this will be a simple 'yes/no' scenario i.e. a student either is or isn't classed as exceptional entry. The default DELTA scores are score= 100 if the value is 0 (i.e. not exceptional entry) and score = 0 if value is '1' (i.e. student is exceptional entry). However, if a student flagged as exceptional entry makes good progress in all respects, then it seems unfair that this flag would prevent them from attaining a high overall DELTA score. Hence we advise that a clause is written into the Student Values import for this category, which causes the value to revert to 0 (not exceptional entry) once the student has attended college for a number of weeks (e.g. 6 wks).

Typical values: is exceptional entry : 1 ; is not exceptional entry or enrolled for >6 wks : 0

Category 7 - Student Survey

Many colleges have surveys where students record responses over a range, for example:
Strongly agree/agree/neither agree nor disagree/disagree/strongly disagree
which in turn could be mapped to a score of 5, 4, 3, 2, 1 points for each response.
Generally, but not necessarily, the higher the score the more positive the response.

For any survey where you can generate an overall response value for each student, this can be imported as a value for DELTA Category 7.

Typical values: import an overall score between 0 and 5 which then maps to bandings e.g.

Banding	Min	Max
Strongest response	4.00	5.00
Second strongest response	3.00	4.00
Middle response	2.00	3.00
Second weakest response	1.00	2.00
Weakest response	0.00	1.00

Category 8 - Work Placement Status

A college may have a system where planned and actual hours of work placement are recorded against each student. You can use this data to create a banding for each student which gives an indication of the status of their work placement.

Typical values – import a score between 0 and 6 for each student:

Banding	Min	Max
WP 100% complete	6.00	6.00
WP planned and started - more than 75% complete	5.00	5.00
WP planned and started - more than 50% complete	4.00	4.00
WP planned and started - less than 50% complete	3.00	3.00
WP planned with sufficient hours but not started	2.00	2.00
WP planned but below minimum hours	1.00	1.00
No evidence of planned WP	0.00	0.00

You may wish to give this category a weighting of '0' until some way through academic year to enable students to gain an overall DELTA score of 100 in the early weeks of the course. If you change the weighting later on then historical DELTA scores will be re-calculated.

Category 9 - Enrichment and Entitlement

For this category you might import a total amount of enrichment and/or entitlement hours as recorded on an ILP system. As this might be zero for the first few weeks and then climb slowly, you could alternatively calculate time recorded as a percentage of expected logged time based on the time of year – this would be more complicated but would give a more realistic category score from the outset.

Typical values – a raw value of total number of hours.

Category 10 – Comments

Comments are frequently recorded on systems such as ProMonitor and are often but not always in response to a negative situation such as declining attendance. However, Comments are often flagged as positive so you need to allow for this. We suggest you import a number which can be above or below zero with a positive Comment counting for +1 and a negative for -1.

Typical values

Student	Positive Comments	Negative Comments	Value to import
Student A	0	10	-10
Student B	5	10	-5
Student C	5	5	0
Student D	10	2	8

If using ProMonitor Comments, consider limiting the import to specific 'Comment Types'

Category 11 – Behavioural

This can be based upon disciplinary meetings as recorded in college student systems, where the different stages can be given a numerical indicator which is then translated into a DELTA score.

Typical values:

Disciplinary Stage Recorded	Value to Import
No disciplinary	0
First warning	-1
Second warning	-2
Final warning	-3
Suspension/exclusion	-4

Category 12 - Employability Skills

This is expected to be used as a survey of either students' own self-evaluation or staff evaluation of employability skills. Hence we recommend configuring it as per Category 7 – Student Survey. From v1.38 of OneGrade Plus there is the feature for these skills to be assessed by staff within the web application, and hence this can be switched to an 'Internal' datasource.
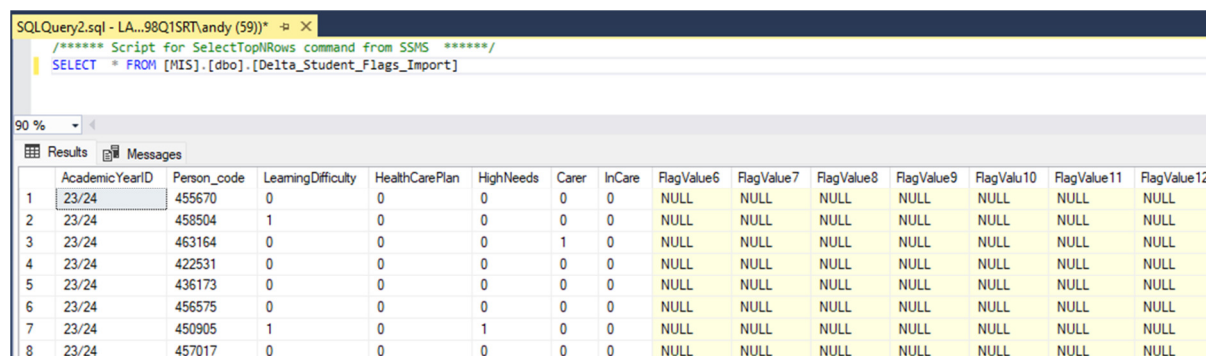
The Import Process – Step 1

The purpose of Step 1 is to select your import type and the datasource for the import.

In the example above, we have selected the student values import and selected a SQL Server table / view as the source. On the right of the screen, the SQL Server credentials are entered to locate the datasource. Pressing the *Choose Datasource* button will test the connection to the SQL server. If the connection is valid, it will open a screen from where you can select the table or view.

Alternatively, you may choose to import data from a flat text csv file, in which case, you will need to provide a file name and path.

What the data should look like:

When you look at the data from within SQL Server Management Studio, a SQL Server view / table should return data in a format similar to that seen below:

Note that the names of the columns are unimportant. However, the order in which the columns appear is critically important – as is the format of the data within each column. Refer to the Import Specifications at the end of this section for more details.

CSV files must be quote-delimited and comma-separated. When viewed using Notepad, this is how a 'Student Information Flags' import will appear:
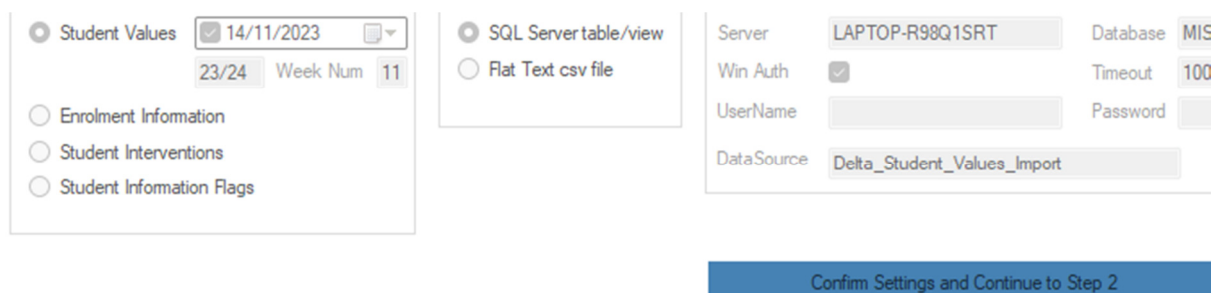

Note that every field has quotes around it and that even empty fields must appear. In this example, flags 6 to 18 are not imported, however an empty pair of quotes must still be used.

If you have produced a csv file that is comma separated but not quote delimited, a facility is available to convert the file using the "Format csv File" facility available from the Import menu in OneGrade.

The Import Process – Step 2

After selecting a suitable datasource, press the *Confirm Settings and Continue to Step 2* button. This will save the currently selected import settings. At this point you have the option to display validated data prior to finishing the import. By default it is ticked.

Press the *Import Data* button to continue. The Importer will then validate the data being imported and if no errors are found, it will display a preview of the data:

At this point, the data has not been imported into the database tables. The data shown is a preview of the validated data. To complete the import, press the *Finish* button. On successful completion, the message will be displayed:
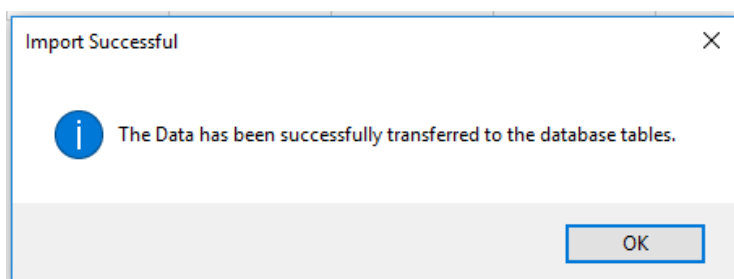
Data Validation Error Reporting

During the Import, the system checks the datatype of each field of data. For example, it checks that numeric values are valid numbers, that dates are of the correct format and that alphanumeric values (text) is the correct length. It also checks that an import has the correct number of columns on each row and that all required fields are complete. Further, it checks for duplicate records in the dataset being imported and reports any rows that are duplicated.

Check for the number of columns

The importer will check every row of the import datasource for the number of columns it contains. Any rows containing the incorrect number of columns are reported:

Check for duplicates

The importer will check the datasource for duplicated records. If it finds row(s) that are duplicated, it will display the unique combination of fields that are causing the problem:

For all the Delta Imports you will be given the opportunity to continue and allow OneGrade to de-duplicate the data. OneGrade will cycle through the identified records, keeping the first and removing subsequent duplicates. Be patient. This may take a few minutes.

Check for required fields

The Importer will check every required field and report any issues. Fields causing a problem are displayed in red. Moving the cursor with the mouse over a field will display the problem with the field in a tooltip:

Check for correct datatypes

The Importer will check each data cell in the import dataset. It will check that Alphanumeric fields (text) do not exceed their stated length, Dates are in the correct format of dd/mm/yyyy, numeric fields contain numeric values only and that Boolean (Y/N) fields only contain either Y, N, 0 or 1. Any fields causing a problem will be shown in red. By moving the mouse over the field, a tooltip will specify the issue:

ONEGRADE

Import Specifications

DELTA Student Values Import

Column	DataType	Example	Required
AcademicYearID	Alphanumeric (5)	23/24	Yes
StudentRef	Alphanumeric(20)	AG101004	Yes
DeltaCategoryName**	Alphanumeric(50)	Attendance	Yes
Value	Decimal(19,2)	95.75	

Data is imported into the Delta_Student_Value table.

Rows of data must have a unique combination of AcademicYearID, StudentRef, DeltaCategoryName

DELTA Enrolment Information Import

Column	DataType	Example	Required
AcademicYearID	Alphanumeric (5)	2324	Yes
StudentRef	Alphanumeric(20)	AG101004	Yes
CourseCode	Alphanumeric(50)	EngAS01-B	
DeltaCategoryName**	Alphanumeric(50)	Attendance	Yes
Value	Decimal(19,2)	95.75	
Information	Alphanumeric(1500)	Assignment A1	

Data is imported into the DELTA_Enrolment_Information table.

Rows of data must have a unique combination of AcademicYearID, StudentRef, CourseCode, DeltaCategoryName. Note that although CourseCode is not required, it is part of the unique combination.

DELTA Student Interventions Import

Column	DataType	Example	Required
AcademicYearID	Alphanumeric (5)	2324	Yes
StudentRef	Alphanumeric(20)	AG101004	Yes
CourseCode	Alphanumeric(50)	EngAS01-B	
InterventionDate	Date(dd/mm/yyyy)	17/11/2023	Yes
Information	Alphanumeric(1500)	One-one meeting	Yes

Data is imported into the DELTA_Student_Intervention table.

Rows of data must have a unique combination of AcademicYearID, StudentRef, CourseCode, InterventionDate, Information. Note that although CourseCode is not required, it is part of the unique combination.

DELTA Student Information Flags Import

Column	DataType	Example	Required
AcademicYearID	Alphanumeric (5)	2324	Yes
StudentRef	Alphanumeric(20)	AG101004	Yes
Flag1	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag2	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	

Flag3	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag4	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag5	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag6	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag7	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag8	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag9	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag10	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag11	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag12	True / False (Alphanumeric(1))	Y (can be: Y, N, 0, 1, 2) *	
Flag13	Alphanumeric(20)	ExcepEntry-HTD	
Flag14	Alphanumeric(20)	Contact Details	
Flag15	Alphanumeric(20)	EHCP note	
Flag16	Alphanumeric(20)	Disciplinary Level	
Flag17	Alphanumeric(20)	DELTA Review date	
Flag18	Alphanumeric(20)	Conf Info location	

*The Value: 2 is accepted – it is automatically converted to TRUE by the importer.

Data is imported into the DELTA_Student_InformationFlag table.

Rows of data must have a unique combination of AcademicYearID, StudentRef

** Valid Delta Category Names are:

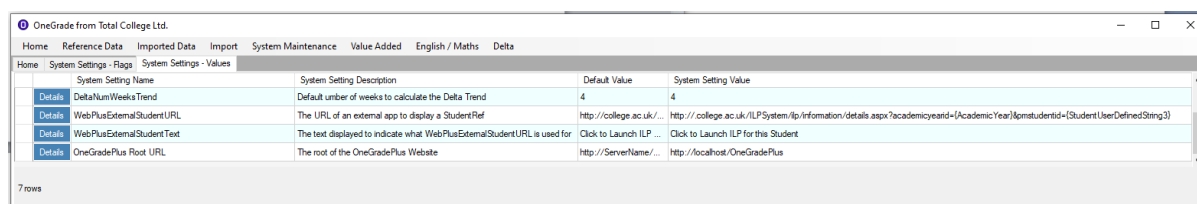| Attendance | ExceptionalEntry | Behavioural | User4 |
Punctuality	StudentSurvey	EmployabilitySkills	User5
Progress	WorkPlacement	User1	User6
WorkOutstanding	EnrichmentEntitlement	User2	User7
ReducedDuration	Comments	User3	User8

Import Troubleshooting

When importing data from CSV files, it is common for extra space or return characters to be included. This will result in errors being reported during the import – commonly as an "Incorrect number of columns" error. To resolve this, open the file in Notepad, go to the end of the file and remove any spaces and return characters that appear after the last legitimate character (which will be a ").

Again, in CSV files, empty or null fields should be shown as "". If the field is "NULL", then this will cause errors to be reported if the field is a Boolean, date or numeric field. To resolve this, open the file in Notepad, then use the Find and Replace facility to find "NULL" and replace it with "".

Duplicate data records in the import datasets can often occur due to unexpected data appearing in your MIS system. As an intermediate measure, the importer can identify and de-duplicate your datasets during the import process. Be patient. Depending on the size of the dataset and number of duplicates found, this may take a few minutes.

TOTAL COLLEGE
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System Settings

There are a few system settings that the Delta requires to be configured:

DeltaNumWeeksTrend

This is the default number of weeks for which the Delta Score trend is calculated. Wherever the trend is displayed in OneGradePlus (main data grid by Group etc., or in the Delta Report) it can be easily changed by users to see a longer term or shorter term trend.

WebPlusExternalStudentURL

This is the URL that can be used to open an external system from within OneGrade Plus; for example an ILP system. A URL might look like:

http://college.ac.uk/ILPSystem/ilp/information/details.aspx?academicyearid={AcademicYear}&pmstudentid={StudentUserDefinedString3}

The following parameters can be used:

{AcademicYear}   format: yyyy (e.g. 2324)
{AcademicYearID}   format: yy/yy (e.g. 23/24)
{StudentRef}
{StudentUserDefinedStringX}   where X is a number from 1 to 8 – e.g. StudentUserDefinedString5

{StudentUserDefinedStringX} is supported because some ILP Systems only accept an encoded Student Reference, so this way the encoded Student Reference can be imported as a Student User Defined field into OneGrade and then used within the URL string.

WebPlusExternalStudentText

This is the text that appears when you hover over the Student icon at the left side of the grid to indicate the ILP System you can open by clicking on the icon.
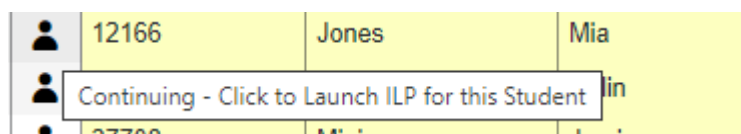
OneGradePlus Root URL

This is URL to open OneGrade Plus. It allows the button on the Home screen within the OneGrade Administration utility to open OneGrade Plus.