BSquared

Troubleshooting Your Progress Data

Using Connecting Steps and the B Squared Analytics Platform

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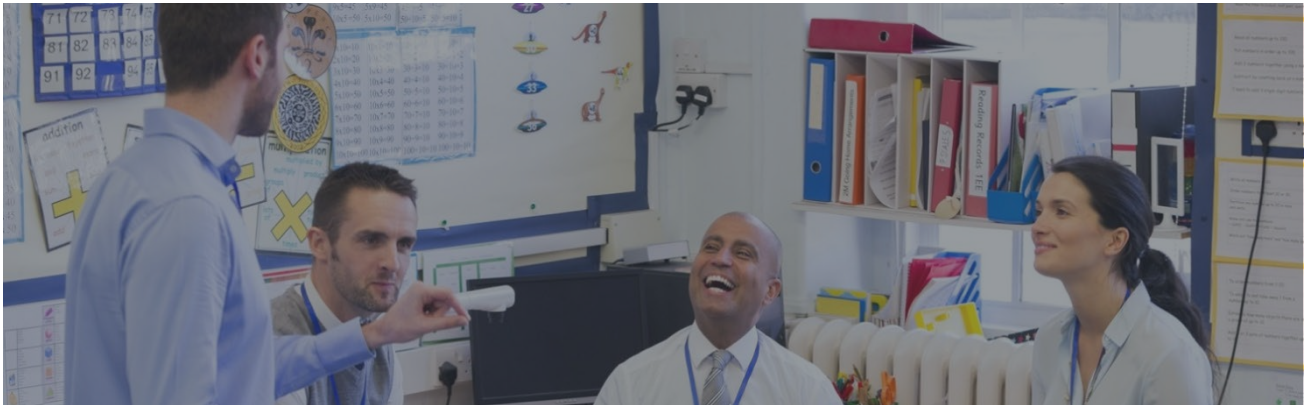
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Introduction

Before you can start to pull reports out of our Analytics platform you need to have reliable data. This guide will help you find and fix bad data. Sometimes the bad data is easy to fix, sometimes data hasn't been recorded and a teacher will need to update the assessment information as it will require their professional judgement.

The easiest bad data to find is when there is 0% progress, but 0% progress doesn't instantly mean there is bad data. There are a few more things to look at first. The good news is that there are a number of signs that will help you identify if the 0% progress is bad data or a student who is making progress on another level or in a different way.

Often when a school uses Analytics for the first time, they find out they haven't baselined correctly, and they have a large amount of bad data which seems extremely daunting. Most of it is simple to fix, it just needs a methodical approach. Once the issue is fixed, it won't come back. You will, however, need to educate staff on how to baseline correctly. There is lots of information on our support site.

Sometimes the bad data you find is not as bad as it seems, it is staff not understanding how the software works or the software is being used poorly. It is important to address this if you find this is the cause of your bad data. Have staff been trained on how to use Connecting Steps? We offer free online self-paced training, bitesize support videos and FREE 15-minute online support sessions. These are great for teachers who are new the school and are using Connecting Steps for the first time.

You may find someone has not recorded information and this is the reason for 0% progress. This is the main reason why you should check your data after your data collection points. If you wait till the end of the year and you find 0% progress, it is a much bigger job to correct the data. If this can be identified and monitored after a few months, it will reduce delays and stress when you are trying to analyse your data.

Frameworks and Students

Due to the range of frameworks covering different abilities and ages, schools need to set age ranges for each framework they use. They also need to set the default frameworks for the school. This sets students on to frameworks automatically based on their age. If you want to assign students to a different framework like the Milestones, Engagement Steps or Routes for Learning, you can do this on the Manage Students screen.

Additional Frameworks like Autism Progress have the option to assign all students to the framework or you can specify which students are on the framework.

A student will only be included in a report if they are assigned to that framework.

Date Ranges

Before you start looking at your data you need to know when you started using Connecting Steps or if you are a school who have been using Connecting Steps for several years, when you last transitioned to your current framework. This will help to decide how far you can go back in time when looking at data.

The quality of your data may also influence this. If your data seems unreliable when you go back 4 years, you may need to only use data from the last 2 or 3 years. You can use the All Profiles report in Analytics to help you judge this timescale.

Baselines

Baselines are extremely important when showing progress. They tell our software where a student has started, so that we can show progress from this point.

There are 2 aspects to a baseline, the first is the actual level you have set as the baseline, the second is the date of the baseline. **The baseline date should be the earliest date for that subject in your school.** When baselining students, we always recommend using the **Framework Start Date**. This looks at 3 dates and uses the most recent. The 3 dates it looks at are:

- When the school started using Connecting Steps
- When the student started at the school (Admission Date)
- When the student started on the framework.

If a student has just joined the school, it will use their admission date. If the student has just moved out of Early Years into Year 1, the student has probably just moved on to Primary Steps or Progression Steps. It will use the date they started in Year 1 as the baseline date.

If a student moves between two schools who use Connecting Steps and the data is transferred between schools, the second school will still need baseline the student. This will be the student's current level when they start with you. It helps to show where the student started with you, compared to where the student is now working.

If a student does not have a baseline in a profile/subject, users are shown a red warning bar at the top of the individual assessment screen. The Level Summary screens also show a warning with 'Baseline Required'.

If there is no baseline, Connecting Steps and Analytics cannot show progress as we do not know the starting point. In Connecting Steps, when running a report like Individual Progress or Group Progress, it will exclude subjects/students where there is no baseline OR the baseline is after the start date of the report.

In Analytics most reports will not include a student if there is no baseline. There is the option under the filter to 'Include students not present for entire date range', this will add students who were baselined after the start of the report and students who have left the school before the end of the report.

Delay in Display

Due to the amount of data within Connecting Steps, data is summarised for use in Analytics. It is not using the raw Connecting Steps data. Data is calculated with a delay of around 15 minutes. If all your data is being rebuilt, it will take up to 2 hours to rebuild. All data in your school is rebuilt if you do any of the following values:

- Change your Default Frameworks
- Change your Best Fit Percentage
- Change your Key Dates
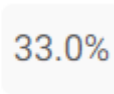- Change Age Ranges for Frameworks

When you turn a framework on, there is a delay while all the data is calculated for that framework.

Finding Bad Data

The first place to start when looking at the quality of your data is the *All Profiles* report in Analytics. Leave the report to run for All Students, select the date range you wish to look at and click Display. Change to the Student View and you will see a grid with subjects and profiles across the top and students down the side.

For each cell in the grid, you should see 3 bits of information:

The black text is their attainment at the start of the report.

The blue text is their attainment at the end of the report.

The percentage in the grey box is the progress they have made. This is the difference between the starting point and ending point.

Not All Students Showing

When you run a report for a framework, you may find not all students are showing. This is because by default it will only include students who were on the framework for the entire time the report was run for. If I run a report from the 1st of September 2023 to the 20th of July 2024, Analytics will by default display:

- Include students on the framework for the entire report time frame
- Exclude students who started at the school after the 1st of September 2023
- Exclude students who have left the school before the 20th of July 2024
- Exclude students who started on the framework after the 1st of September 2023
- Exclude students who have moved on to a different framework before the 20th of July 2024
- Exclude students without a baseline, or a baseline with a date after the start date.
- On reports with multiple profiles, it will include a student if at least one profile has been baselined before the start of the report.

This can have a big impact on the students included in the report. Under the funnel icon at the top of the report, you will see the option to 'Include Students Not Present for Entire Date Range'. This will then update my report to:

- Include students who started at the school after the 1st of September 2023
- Include students who have left the school before the 20th of July 2024
- Include students who started on the framework after the 1st of September 2023
- Include students who have moved on to a different framework before the 20th of July 2024
- Include students without a baseline, or a baseline with a date after the start date.

Adding these students will not impact averages. Averages are calculated using students who have data at the start of the report and data at the end of the report.

Missing Data

If you are not seeing this information, there is generally an issue. You will only see some of these error messages if you enable 'Show Students Not Present for Entire Date Range'. When you are missing data you will see one of the following:

No Baseline
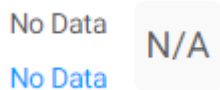
If the student does not have a baseline before the end of the report time frame, then both the black text and blue will show No Data. If you look in Connecting Steps and see a baseline, it will be set using a date after the end of the report time frame you are looking at.

In reports where you are only viewing one profile, this student would not be included by default in the report as the baseline was not entered before the start of the report. In reports with multiple profiles, by default, you will only see this if at least one other profile has been baselined before the start of the report.

Historically having no baseline was the cause for most data issues. In Connecting Steps V5, we have lots of warnings about there being no baselines, we have also made the baseline process much quicker and easier to do.

Baseline After Start Date

If the student was baselined after the start of the report, the black text will show No Data. The system has no starting point for the student. They have since been baselined so we now know where the student is working and can show this in blue. As we cannot show the difference between starting point and ending point, we show N/A. This student is excluded from working out averages.

In reports where you are only viewing one profile, this student would not be included by default in the report as the baseline was not entered before the start of the report. In reports with multiple profiles, by default, you will only see this if at least one other profile has been baselined before the start of the report.

Historically in our old analytics module, CSAM, these students would often show as making 500% progress or more as we took 0% of the lowest level as their starting point and showed progress from there. With students being assigned to frameworks and the requirement for baselines, this doesn't happen in Analytics.

Not On Framework

Not On Framework

Not On Framework

If you see 'Not On Framework' in black text, it means the student was not on the framework at the start of the report. This is because they were assigned to a different framework at the start of the report and moved to this framework during the report timeframe.

If you see 'Not On Framework' in blue text, it means the student was not on the framework at the end of the report. This is because they were assigned to a different framework before the end of the report timeframe.

Not In School

Not In School   N/A

22.0% of Step 5

If you see 'Not In School' in black text, it means the student hadn't started at your school before the start of the report. If the 'Not In School' is in blue text, it means the student left the school before the end of the report time period. In the above example the student was not in the school at the start of the report, but has since been baselined, so we can see where the student is now working.

Not In School   N/A

No Data

In this example, the student was not in the school at the start of the report, they are included in the report as they are assigned to this framework, but there is no baseline before the end of the report time period.

Investigating 0% Progress

Once you have gone through the process of ensuring all students are assigned to the correct frameworks and baselines have been entered on the correct dates, the next stage is to identify students who have made 0% progress. Students can show 0% progress for a number of reasons, the most common is that data has not been entered. Other reasons include the student is making progress on a different level, the progress made is working towards achieving skills (Yellow and Orange Levels of achievement), the baseline is on the wrong level or students being assessed on the wrong framework

If you are seeing 0% progress, then you need to ask why.

0.0% of Step 5
0.0% of Step 5   0.0%

If a student has remained at 0% of a level, it generally infers no data has been added since the original baseline. This is either because information has not been recorded or information has been recorded on a different level.

77.0% of Step 2
77.0% of Step 2   0.0%

If a student has remained at the same percentage of a level over the report time frame, then data has been recorded previously on this level, but not on this level for the reporting period. This is again due to information not being recorded or information has been recorded on a different level. In this example the student is towards the top of the level and might be plateaued on that level but making progress on the level above. For these students it is worth looking at some of the reports that show non-linear progress.

Has Information Been Recorded?

You can use the *'Assessments Changed'* report in Connecting Steps to see what data has been entered for a student in a subject between 2 dates. This report shows all levels of achievement and shows information recorded across all levels. If you use the same dates as the report you have run in Analytics, it will show you all information recorded during the report period. In the first column of circles, it will show the students progress towards achieving the skill at the start of the report time frame and the second column of circles shows the progress towards achieving the skill at the end of the report. The arrow at the end will be green if there is progress or red if there has been regression.

By default, the report is organised by level, but it can also be organised by date using the sort icon at the top.

When you run this report for troubleshooting progress you will see a variety of results:

- No Information - This means nothing has been recorded in that subject during the report time period across any level.
- Nothing turning green, only yellows and oranges being added or students moving to darker yellow or oranges. This means that the progress is there, but the student has not achieved any skills during the time period.
- Assessments becoming green, but not on the student's current level. This means that the student is achieving skills, but it is not on the level they are currently working on. This could be because they have plateaued and are working on the next level, but it could also be because the student was baselined incorrectly and the teacher is assessing where they feel the student is working, without updating the baseline.

Warnings in Connecting Steps

Throughout Connecting Steps, we have added various warnings to help users get the most out of the system.

Default Frameworks Not Set

Schools need to set their default frameworks. This is the default path students will take through the different frameworks you are using. For schools using only 1 or 2 frameworks that do not overlap in terms of ages, then it is done automatically. All other schools will need to set their default frameworks. Doing this will assign students to frameworks, this information is used to guide users when assessing and used to decide which students to include in reports for different frameworks.

You also need to assign all students or individual students to Additional Frameworks like Autism Progress and Communication and Interaction.

The default frameworks are set in My BSquared.

There are Some Students Who Have Not Been Put into a Registration Group…

If there are students in your school not assigned to a registration group, there is a chance that students might be missed when assessing. It is important that all students are included in a registration group so that they are visible with the different groups in Connecting Steps.

Please review the groups on the Manage Groups screen in My BSquared

This Student Is Not on This Framework. This Student Is Currently Working On…

Once you have assigned students to a framework, you will see this warning if you are looking at a framework for a student they are not working on. On the Group Assessment screens this will show as a red exclamation mark.

If a student has been assigned to the Engagement Steps and I view the Progression Steps for this student, I will see this warning. It is telling me that I should only be assessing the student on the Engagement Steps. It is not stopping me from viewing the Progression Steps, but it is reminding me that I should not be assessing on this framework. It will also list the frameworks the student is on. If a student is assigned to the wrong framework, this should be corrected so that the student is included in the correct reports in Analytics. Correcting the framework will mean you can then baseline the student and assess them without seeing the warning.

If a student is not assigned to a framework, you cannot baseline them in that framework.

A student can work across multiple frameworks, this just needs to be set in My BSquared.

This Student is on a Higher Level

If you see this warning, you are looking at a level below the student's current level. By default, Connecting Steps will take you to the student's current level, but you can view any level. If you go to a level below the students current, it will show this warning to remind you that the student has already achieved this level. It does not stop you assessing information as there may be a reason you are viewing this level and wanting to record information, but it there as a helpful reminder. On the Group Assessment by Level screen this will show as an orange exclamation mark.

A Baseline Has Not Been Set for This Student and Profile

This warning is telling you the student has not been baselined for this profile. This is an extremely important warning that should not be ignored. If there is no baseline, the system cannot show progress as it does not know the starting point.

Fixing Baselines

One of the biggest issues schools have with data is missing baselines or baselines with incorrect dates. Baselines are easy to fix in Connecting Steps and can be done on the Group Level Summary or Individual Level Summary screens. The group screen will show one subject for multiple students. The individual screen will show one student and multiple subjects.

In the top right corner of the screen, you will see Delete Baseline and Add Baseline. To delete a baseline, click on Delete baseline and then click on the baseline you want to delete. To add a baseline, click on Add baseline and then choose one of the date options. Framework Start Date will often be the correct option, but you can also choose Custom and choose your own date.

Here are 2 video guides on baselining…

How to Baseline Students

https://support.bsquared.co.uk/docs/how-to-baseline-students/

How to Delete a Baseline

https://support.bsquared.co.uk/docs/how-to-delete-a-baseline/

Sorting and Filtering Data

When you look at a grid of data patterns are not always obvious. Sorting data will show you things you may not have seen, and Filtering allows you to ask questions about groups within your overall data. There are simple things you can look out for that will help you ask questions about your data. Below are a couple of things you can try, but these are suggestions without knowing your school or your students, you will take this into consideration when asking the questions of your data.

Sort by Registration Group – Are there any groups where all students are making significantly less or significantly more progress than other groups? Is the software being used correctly, does the teacher have high aspirations?

Filter to a level, then sort by date of birth – This is looking at all students working at the same level ordered by their age. The simple rule is that the younger students on this level should be making the most progress as they have reached this level earlier in their life. To sort by date of birth, tick 'Show Extended Information' when looking at the Student View of a report.

Filter to a key stage/year, then sort by progress – Students working on higher levels should be making more progress than those on lower levels. For students working in different key stages at the same level, are the students in the lower key stage making more progress? To filter to a key stage/year, click on the funnel at the top of the report and scroll down to key stage/year.

There are lots of things you can do, they will often be specific to your school.

Different Ways to Look at Data

Most of the reports in Analytics will only look at the students' current level for progress (linear progress) and will only show progress when a skill has been achieved. This will work for most of your students, but there will be some students where this is not the best way to show progress.

In Connecting Steps, the Overall Progress and Non-linear Progress reports can show progress over multiple levels simultaneously. We call this non-linear progress. In Analytics there a couple reports under the heading of Non-linear Progress that will show progress across multiple levels. One is for a student across multiple subjects, the other is for a group of students for one subject.

For some students, achieving a skill takes a long time and most progress is shown using the different levels of achievement. This is very individualised, so there are no reports in Analytics that show progress this way. In Connecting Steps, we have the Achievement Progress and Achievement on Multiple Levels reports to show these really tiny steps of progress.

The different types of progress are discussed further in the webinar and documents mentioned on the next page.

Analysing Data for Students with SEND

In February 2023 I ran a webinar on analysing data for students with SEND. I also wrote a 30+ page document about analysing data. The webinar and document are not about how to analyse data with our software, but a higher-level question about how should you as a school analyse data?

You can watch the webinar and download the document by clicking on the link below:

https://www.bsquared.co.uk/2023/02/22/analysing-data-webinar/

Effective Target Setting for Students with SEND

In February 2023 I ran a webinar on effective target setting for students with SEND. Alongside this I wrote another long 30+ document looking at how schools set targets and is it effective?

For years schools have used linear numerical targets, they set an attainment point to reach at the end of the year or an amount of progress. These targets are often set by a spreadsheet or a piece of software. The targets were often meaningless and irrelevant. They reduce morale, they are a burden on schools. One of the reasons the P Levels were removed is how schools used their data.

The data and targets became more important than the students. So why do schools still set these targets? Are targets useful? What should they be doing? In this document I try to answer some of those questions. I look at the types of targets schools use and discuss if they have any benefit for the students. I also discuss what type of targets schools should be using.

https://www.bsquared.co.uk/2023/02/09/student-target-setting-webinar/

Feedback and Questions

If you have any questions or feedback, please contact me by email dale@bsquared.co.uk