



Data Analysis for Pupils with SEND

Using Data to Improve Outcomes for Pupils with SEND

Dale Pickles, Managing Director

BSquared Ltd

Address: B Squared, 3 Meadows Business Park,
Blackwater, Hampshire, GU17 9AB, UK

Phone: 01252 870 133
Email: hello@bsquared.co.uk

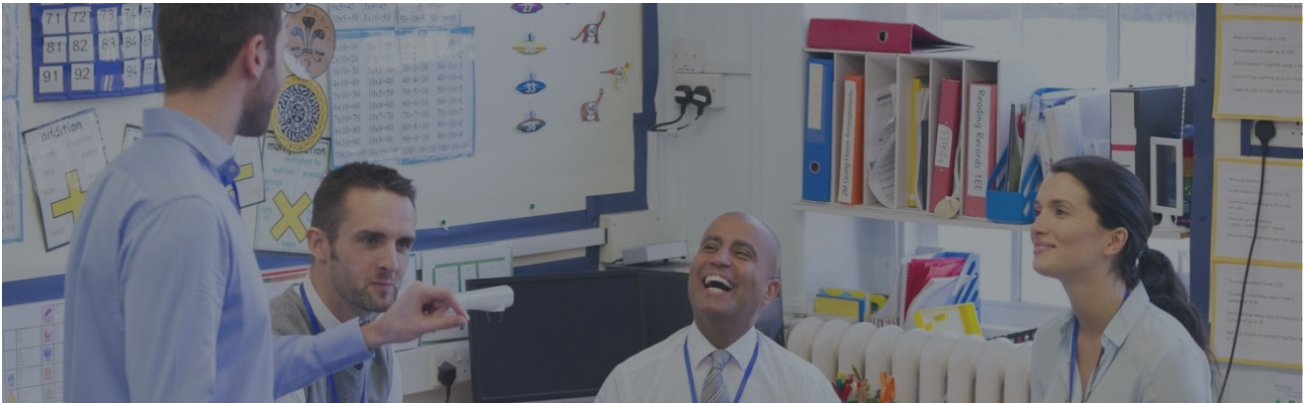


Table of Contents

Introduction.....	4
What is Data?	5
What is Attainment?.....	6
What is Progress?	7
Linear Progress	7
Non-linear Progress	8
Engagement/Achievement.....	9
Demonstrating Progress	9
Which Type of Progress is Best?.....	10
Academic Skills	10
Non-Academic/Softer Skills	11
Size of Levels.....	12
Cause vs Effect.....	12
What is Progress Measuring?	14
Ongoing vs Termly vs Yearly	15
Does a Graph Give a Judgement?.....	16
Cadbury Creme Egg Sales	16
Cadbury Creme Egg Marketing Costs	16
Cadbury Creme Egg Income	16
What about Targets?	17
How Should I Analyse My Data?.....	17
Questions.....	17
What Happens If I Don't Have Any Questions?	18
Playing with Data.....	18
Levels of Data	18
Groups	19
Dates.....	20
Sorting Data	20
Sharing Data with Others	20
What Do I Share?.....	20
How Do I Share Data?.....	21

- What do Ofsted Want to See?..... 22
- Older Pupils Make Less Progress 22
- Progression Guidance 2010-2011..... 23
- What is Good Progress? 25
 - Different Ways to Judge Progress 26
 - Attainment of similar cohorts..... 26
 - Prior Attainment and Progress 26
 - Formula..... 27
 - Types of Progress..... 27
 - Triangulation..... 27
 - Judging Progress 28
- Summary..... 29
 - Data Does Not Give Judgements 29
 - Low Progress does not mean Bad Progress..... 29
 - Do You Need Judgements in All the Different Areas? 30
 - Measure What You Value, Don't Value What You Measure 30
 - You are Analysing Data to Improve Provision 30
 - Keep it Short and Simple 31
- Feedback..... 31
- Appendix A: Asking ChatGPT About Progress for Pupils with SEND..... 32
 - What is a good way to assess progress for SEN pupils? 32
 - What is non-linear progress?..... 32
 - What do you call progress that is made when pupils learn things in a different order to what is planned? 33
 - How would you talk about progress when a pupil's abilities are vastly different in different areas, eg they can decode text really well, but they struggle to understand what they are reading? 33
 - Is assessing progress in engagement important?..... 34
 - What are the barriers to progress for pupils with SEN?..... 34
 - What are the barriers to progress for pupils with SEN in Maths? 35
 - Should you compare progress of pupils with SEN against pupils without SEN? 36
 - If we know how to judge progress for pupils with SEN, what are the reasons we aren't doing it?..... 36
 - What are the implications of including pupils with SEN when comparing progress between different schools? 37
 - Should we set progress expectations for SEN pupils? What benefit does it give? What are the drawbacks? 37
 - Is "B Squared" a good tool to measure progress?..... 38

Introduction

In this document, I discuss data and how schools should be analysing data. There are graphs and spreadsheets everywhere, but is it making a difference? Lots of people are not confident with data. This is often because they are not sure what they are looking for or what questions to ask of their data. The problem is not the data, the problem is they don't know what they want answers to.

Data should be useful, powerful, and used to improve outcomes for pupils. The data you analyse could change each year, it is not about finding a process you do every year and repeating forever. The questions you ask each year will be changing, so the analysis you do each year should change.

Evidence based decision making shouldn't be new to people. It has been used for years, but over the last 5 to 10 years has been used more widely in education. Instead of just trying something, is there any evidence that it will work? The Education Endowment Foundation (EEF) have a website full of all strategies to improve outcomes for pupils. The website will help you to see the benefit and the cost to implement each strategy, along with all the evidence this decision is based on. Most schools will find out what other schools are doing when they want to change something. They want to find what works for others as it is likely to work for them. They are using this as evidence to make their decisions. This is what assessment and data give your school. It helps you see via academic performance, what is working in your school and what isn't. Academic data is part of the of basket of indicators, there are many other factors that will impact pupil progress. You should never be making judgements or decisions based solely on the data.

Analysing data shouldn't be complicated, it is about answering questions, asking more questions and keeping the process simple. When you share data with others, they shouldn't be scared, they should be able to understand the data and be part of the conversation around finding a solution.

If you are interested in what ChatGPT, the AI chatbot, thinks about progress for pupils with SEND, jump to page 32 to see how it answered the questions I put to it. It was great to see the answers are in line with the content of this document. The answers it gave make a lot of sense and it is what we should all be doing.

If you don't have time to read this whole document, jump to page 29 to read my summary. If you are curious about why, you can read the relevant section in the document.

What is Data?

When we think of data, we typically think of numbers, tables, and graphs, but these aren't the only type of data. You can generally think of two types of data, quantitative and qualitative.

Quantitative data is numbers based, countable or measurable. A score in a test, their attendance, their age, height is all quantitative. It is fixed and universal. Qualitative data is descriptive, or interpretation based. This could be a conversation with a pupil, an email from a parent, a photo or video of a pupil doing something. Qualitative data is subjective and unique.

When you look at data, you need to think about the layers, what is the data I am looking at built from? How reliable is the underlying data? Schools generally use numbers and graphs to share their data as they feel it is more concrete, it is quantitative. The problem is that it isn't always concrete, underneath is typically a teacher's subjective opinion of a pupil's ability. It is amazing how much data we think is concrete is actually subjective, because it is presented in a numerical way with a percentage increase or with a comparison to a previous value.

Does it really matter if data is qualitative or quantitative? We put so much faith into quantitative because we feel it is concrete, it is fixed, it is universal. We feel that the data gives us a solid foundation to make decisions. In short, we all love certainty. The problem is although we are looking at a table or graph, the data isn't concrete. Qualitative data is subjective, but some quantitative is also subjective. You will generally find quantitative data is used with large data sets, to make analysing and summarising data easier. You will find qualitative data use with small groups or individuals where the data is more nuanced and personal.

If you are using teacher's judgements, how are you ensuring all your teachers have the same understanding of the curriculum, the same expectations and the same flexibility around their judgements. If as a school you are working on this, through moderation, teacher observation, learning walks etc. then you can assume that the decisions will be consistent throughout the school. This is what Ofsted wants all schools to do. Doing this will give you more confidence in your data. If a school is not doing any work around this, there is no consistency, and you can't rely on teacher judgements. If you can't rely on your teacher judgements, then any data you produce will be misleading and any decision you make based on this data will be wrong.

In computing there is a term "rubbish in, rubbish out" (RIRO). It is a concept that if you use flawed, or nonsense (rubbish) data, it can only produce nonsense. Another way to look at it is if you take a photo on your phone and it is blurred/too dark etc. there is not a huge amount you can do to correct the photo. You are stuck with the bad photo. We need to take the same approach with our data. When you are building or viewing data, think about the data underneath and how reliable it is. I have been to schools where headline data is simply fictitious and bears no resemblance to the underlying data. I have been to schools where they used teacher's judgements, but the judgements were completely unrealistic. The teacher's judgements were the judgements the senior leaders wanted. This meant that further down the line, when they didn't get the SATs results they expected, everything collapsed. Where they thought students were at the end of each year was inflated, their expected grades were completely wrong. They had a lot of rebuilding; it took a number of years and lots of work.

When looking at data, use triangulation. Instead of just relying on a data you are given, think of how else you can get to the same data. Is there other information you can use to reinforce the data? Can you use other data to prove or disprove this data? Evidence based decision making is the same process. Instead of being told something will work, you research has it worked in other settings. Have other schools had success doing this? Did it work as well as I was told it would work? The EEF have lots of evidence around what works and what

doesn't. You can do the same with your school's data, you can use other data to reinforce the data you are using.

In early years settings, they collect lots of evidence either in paper based learning journals or via software like Evisense. It is a great way to demonstrate what pupils can do before they are able to demonstrate their skills and knowledge on paper. As pupils learn to read and write we change to using the work pupils have done and test results to evidence a pupil's ability. All of this is qualitative data, the photo or the work is showing something which you are interpreting and adding meaning to. We often use this evidence to help triangulate and reinforce our other judgements.

Evidence in the form of photos and videos, exercise books and tests are a great way to evidence academic achievements, but what about the non-academic skills, their softer skills which are often very big barriers. There isn't a test around friendship, a photo or video of a single moment doesn't really demonstrate a friendship. This is where we can use all of that qualitative data to show that progress is being made. We can have conversations with parents, we can get feedback from lunchtime supervisors, we can capture evidence and we can use pupil voice. This qualitative data can show a very clear picture of the progress a pupil is making in different areas and by using multiple sources it is reliable.

What is Attainment?

Attainment is a measure of a pupil's ability against recognised education standards. Or to put it more simply, what a pupil has achieved within an educational context. Achievement and attainment are very similar, but attainment is looking within an educational context and achievement is looking at a much wider range of skills. When we are discussing attainment, we might be thinking of GCSEs, A Levels, functional literacy and numeracy etc. These are all widely recognised, but we may also be thinking about how they are performing in a test or against a set of expectations. Attainment is a point in time value, what is a pupil's skill set is on a specific date.

Achievement covers much wider skills and for pupils with SEND these skills that are often more important than the academic skills. It could be older pupils working towards independent living or it could be younger pupils learning how to build friendships.

When we talk about our own achievements, it is easy to just simply discuss our academic achievements – our attainment. We can talk about our grades, qualifications etc. We forget the other areas, the areas we have worked on, the areas where we have overcome barriers and the areas that have really made a difference to our lives. Why do we do this? Is it simply because it is hard to quantify? Is it because we don't like discussing ourselves in such a personal way? Or is it simply social norms?. It is important to remember that attainment isn't everything, we should be looking at wider achievements.

What is Progress?

Progress is moving forward. Progress means improving. In our cars, our phones, technology around the home, we see progress. We also see progress in other ways like the way we now think about mental health and the number of people being supported rather than ignored or forgotten. In terms of education, we think of progress as the number of skills or knowledge a pupil has gained between two dates. It is the difference between two attainment points. How much progress has a pupil made since last year? Look at the attainment last year, look at it today, the difference is progress. There are different ways to look at progress, the most common is linear progress, but it is not the only way to look at progress.

Linear Progress

The simplest way to look at progress is linear progress. This is the most common way of looking at progress and the way every system tracks progress. If you want to know what the progress is in English Reading, you compare two attainment point that only look at their current level. This way of looking at data makes a very big assumption, that all pupils learn in the same order.

All progress is linear. I cannot count to 10 before I can count to 2. I cannot read a book if I cannot read a word. However, a subject or area of the curriculum is several strands or concepts joined together. I might be better at some concepts than others, my progress can become spiky, I might work across different levels. This would be non-linear progress.

When we use levels or end of year outcomes, a decision has been made on what skills should be achieved at this point in a child's education. Some skills are based on research into child development, but other skills are there based on fashion, by what someone or a small group of people felt were important. As a company we work with the English, Scottish and Welsh curriculums, we see similarities between the curriculums, but we will also see a wide range of differences in where skills are placed and the order things should be achieved. Within a subject or areas, progress can be non-linear, but within a concept, progress is always linear.

Linear progress across a subject assumes that all pupils learn the same skills in the same order. Yet we know that different curriculums put skills in different orders. We also know that we all learn differently. Attainment within linear progress focuses on the areas a pupil struggles with the most. My decoding might be much better than my comprehension, but my ability in decoding is ignored as my struggle with comprehension is what has decided where I am working. My linear progress will be where was I with my comprehension last year and where have I got to this year. All my progress with my decoding is ignored.

A pupil with the same level of ability could have completely different results in the English, Welsh and Scottish curriculums. Depending on what curriculum they follow will depend on what skills are covered and when they are covered. The curriculums value different skills. Learning within subjects is not as linear as people think. I am not a fan of linear progress because it ignores the fact that we all learn differently. The pupil might have a much higher overall ability, but not in the areas that have been set. Progress should be celebrated, not ignored.

However, what this linear way of looking at attainment gives you is the overall level of ability based on the lowest attaining area. If a pupil achieves a level, it means they have met most of the skills at that level. When looking at attainment this way, it gives you a foundation to build on. As I go through the other types of progress, you will see that you do not get such a simple way of representing attainment. Linear progress is probably the most important value as it is highlighting their lowest area which you will want to support and make progress towards.

The strength and weakness of linear progress lies with its simplicity. Easy to understand and easy to misrepresent.

Non-linear Progress

In the previous section I discussed how subjects or areas are just strands and concepts linked together. Most academic settings use academic areas that we have used since Victorian times, subjects like English, Maths, History and Geography. Early Years use a very different approach to organising skills, they have 7 areas including communication and language and knowledge of the world. In 2009 The Rose Review recommended primary schools in England move to 6 areas of learning, very similar to the early years approach. If we look at a pupil's attainment using these different lenses, their linear attainment would change depending on the lens we were looking through. Their non-linear wouldn't change if the lenses covered the same areas in different ways.

Non-linear progress is about celebrating all progress. Instead of ignoring my ability in decoding and focusing on my struggle with comprehension, non-linear progress recognises all the progress I am making. For pupils with SEND this makes a lot more sense than linear progress. Pupils with SEND don't develop in a nice simple uniform way and they can have multiple barriers. Some of these barriers stop a pupil from making progress if you only look at progress in a linear way. With non-linear progress you can show there is progress, that they are learning new skills, even though there are some skills they cannot achieve.

In the old P Levels, P4 and P5 were very much about physical skills. In writing the skills focussed on holding a pen or pencil, different movements, forming letters etc. When you got onto P6 and above, there was no mention of physical skills, it was about capital letters, full stops and forming sentences. Some pupils with SEND couldn't achieve P4 or P5 due to not being able to hold a pencil or not having the fine motor skills to form the letters correctly. They could, however, achieve all the skills on P6 and P7. Due to their needs, they did not learn in the traditional order.

Non-linear progress is not just for pupils with SEND, the experiences and opportunities a child has, has a big impact on the order they learn things. As a child I was able to write 'Hello my name is Dale.' With the capital letters and full stop on a ZX spectrum before I could hold a pen correctly. This was because computers and technology were a big part of our home. According to linear progress, this is not possible. My ability to write my name with capital letters and a full stop would be ignored as I couldn't hold a pen correctly.

Non-linear progress has the benefit of celebrating all pupil's achievements, however spiky their profile is. It is hard to express this simply. If a pupil's decoding is much higher than their comprehension, that is quite easy to explain, but if it is only part of comprehension they struggle with, it can be hard to share in a simple easy to understand way.

One of the problems of non-linear progress is people can lose sight of what is important to the pupil. The pupil might make lots of progress in area they find easy, the teacher may leave an area the pupil struggles with as there won't be progress. The area the pupil is struggling with could be one of their barriers and an important area to support. Non-linear progress year on year can be very inconsistent, depending on the areas teachers choose to focus on.

Non-linear progress is extremely useful but should not be used on its own.

Engagement/Achievement

Before a pupil can achieve a skill, they need to engage with the activity. If they don't engage, there won't be progress. This is the fundamental principle of the Engagement Model. It doesn't just apply to pupils with complex needs, it applies to all of us. If a TV program doesn't engage you, you will switch it off. If someone is talking about something you aren't interested in, you won't listen and you won't be able to recall what was said. Getting a pupil engaged in an activity is a big step for some pupils. In our assessment software, Connecting Steps, we have several different levels of engagement/achievement. "Engagement is the 4th level out of the 7 steps towards achieving a skill. This means there are 3 steps before a pupil has engaged with an activity.

The engagement/achievement levels before reaching Engagement look at the pupil being given the opportunity, the pupil being aware of the activity and the pupil responding in some form. For some pupils these are big steps due to their needs. For these pupils it is important to celebrate these steps.

Once a pupil has engaged with an activity, they may require a lot of support. This could be physical hand over hand support, verbal prompting etc. If a pupil required physical support to achieve a skill, but now only requires verbal prompts, this is a big step for them and should be celebrated. Compared to their non-SEND peers, the reduction in support might seem trivial, but for this pupil and their family, they are making progress. It is a step towards doing things independently.

When we look at progress, if a pupil is not achieving things independently, most systems would show that there is no progress. It is important for these pupils to look at the level of engagement/achievement. If the pupil is engaging in more activities/learning opportunities or are they requiring less support to achieve skills, they are making progress.

The big barrier for linear and non-linear progress is the need to do things independently. Some pupils need a lot of support and may never be able to do some things independently, but they can do it with support. The focus for the pupil might not be to do things independently, but to have a wider range of skills, with the least support.

Demonstrating Progress

The three ways of looking at progress above are ways to demonstrate progress with data you have recorded. They are quantitative. Not all progress is recorded as schools don't have ways to record data for everything they do. If you want to show that attendance has improved, you will have data. If a pupil is anxious about school and you are supporting the parents to help to reduce this anxiety, you probably won't have data that you can use. What you will have is feedback from staff on how the pupil is when they arrive at school. You will also have conversations with the parents or have emails from parents discussing the pupil's anxiety and how they are at home. This is all qualitative data.

You could try and turn this data into a quantitative scale with success/fail or similar, but most of the time this wouldn't be appropriate. You will remove information that will tell more of the story that could help you identify what is working and what isn't.

People aren't always a fan of this type of data as it isn't numerical and can't be turned into a graph easily. Conversations, email, observations etc. are extremely valuable and can show real insight into what works and why. The additional information will often help identify next steps. This type of data is generally used for

individual pupils or small groups around the non-academic skills, the softer skills that some pupils struggle with and are often the real barriers to progress.

Which Type of Progress is Best?

The answer is it depends on the pupil and what you are measuring. **There is no single answer.** It would be so simple to use one method to look at progress, but it would not be effective. Yet this is what nearly every school uses. They all use linear progress as it is the simplest to use and works for most pupils well. The main reason for this is most schools are only measuring academic progress because that is what they are asked for and the people pulling the strings want to see. The other reason is the systems they use to produce their data can only handle linear progression.

Looking at all the guidance across England, Scotland and Wales, it is only the guidance from the Welsh Government that recognises that learning is not linear, that pupils will find some concepts easier than others and schools should show progress where progress is being made.

Until the guidance changes in England, the majority of assessment systems will not adapt, they will not show progress in other ways. As a company, we have been able to show non-linear progress for over 20 years, yet other systems, even those designed for pupils with SEND progress can only be linear. Does your assessment system or how you use your assessment system limit how you can show progress for your pupils? Does it prevent you from seeing the full picture?

The way you look at progress will depend on what you are working towards and who it is for. Are you measuring academic performance, are you trying to reduce a pupil's anxiety or are you measuring how well you have implemented your new approach to Maths? How you measure the progress towards these will be different.

For pupils with SEND, we need to understand that assessing pupils and showing progress is not a simple process. Assessing and showing progress will always require more time than for non-SEND pupils. The process won't be as simple. I am not saying it needs to be over complicated, it needs to be able to identify where progress is or isn't being made and identify the next steps. This will always be more complicated than a judgement of below, expected or above, because it needs to be.

Academic Skills

With academic progress, linear progress will always be the starting point. The reason for this is it will work well with most pupils, even those with SEND. Progress for most pupils is primarily linear. There may be some non-linear progress, but the majority of their progress will be their current level, so using linear progress will work for most pupils.

For pupils who aren't showing linear progress or there is a limited amount of linear progress, I would then look at non-linear progress. Have they plateaued on their current level due to an area they are struggling with, but they are making progress in other areas on the level above? Using non-linear progress would show there is progress being made. Linear progress would simply show they are making none or very little progress on their current level. This type of progress is typical of pupils with autism and their spiky profile, but lots of pupils have a spiky profile. Pupils with a specific difficulty may only struggle with one area within a subject, this will mean that non-linear progress will reflect the progress they make more effectively.

If a pupil wasn't engaging with learning opportunities, but with all the changes you have made they are now engaging with lessons, using engagement/achievement will show the progress. If a pupil with complex needs requires a lot of physical support, but over the year, the amount of support has been reduced or they are initiating activities, using engagement/achievement will show the progress.

Depending on your pupils, you may find linear progress works for 80% of your pupils as it shows enough progress without the need for discussing data in a more complex way. You may find that the non-linear progress works for the most of the remaining pupils. You may only use the levels of engagement/achievement with a few pupils. If you are a school for complex needs, you may find that the linear progress doesn't work for any of your pupils and you will use the engagement/achievement to for a higher number of pupils.

Whichever value you use, you need to share progress in a meaningful way. A graph is a great way to share information visually and it can also be useful to compare to the previous year. A percentage progress doesn't mean much to a parent. What often matters to parents are the skills a pupil has achieved. When discussing progress, discuss some of the key achievements, hopefully the parent has also seen an improvement in that area, making it even more meaningful.

Non-Academic/Softer Skills

When we look outside of the academic skills, we have less options in how we record progress. A neurotypical person develops in a way that allows us to make certain assumptions. If they can do X, they can also do Y. When you think about skills a pupil has, we think of what a typically developing child of X age can do. The majority of pupils fit this mould; their progress is linear.

Neurodiverse pupils often do not fit this model. A pupil who can do X easily, might really struggle with Y. These pupils will need support to develop these softer skills. Other pupils with a developmental delay or a developmental disability may have barriers which need support to overcome. They might not be able to achieve something due to their needs. They can be affected across a wide range of areas or be more affected in some areas than others.

That fact that the pupils who need support in these areas are the pupils that aren't progressing in the typical, linear way means we can't use linear progress to demonstrate progress. If you have a framework like Autism Progress or similar, you can use this to demonstrate progress in either a non-linear way or through engagement/achievement. Even with this framework, it won't capture everything, you will need additional information to tell the full story.

You cannot always fit softer skills into a framework, they may be specific to a pupil or the setting. You can write targets as part of an IEP, with success criteria and then record progress towards those outcomes, but in these situations, with the softer skills, it will be the journey, the feedback from staff, from parents, the pupil's own voice that will really demonstrate the progress that has been made. You will move from quantitative data to qualitative data. This will be the most valuable and reliable way of looking at progress. Is the pupil less reluctant in the mornings? Are there less meltdowns before school? Does the pupil seem happier at the end of the school day? Does the pupil engage with those around them more? Are they joining in group activities? For some pupils, changes like these are huge and need to be celebrated.

The qualitative data here is more valuable here than quantitative because of what it can capture. Quantitative data is used with closed questions, where you limit the choice, qualitative data is those open-ended questions, where is no limits on how it is answered.

Size of Levels

This is an area that may have never crossed your mind. The size of the levels in most curriculums are not equal. This is intentional and the reason will depend on the framework, a number will have smaller levels at the bottom and larger levels at the top, the detail reducing as the pupil's ability increases. Others follow different patterns. The P Levels were always displayed as equally sized levels. They were not. If you look at any of our framework comparison charts, the size of each box represents the developmental range of each level. You will clearly see in some frameworks the size of levels can be vastly different.

Another example is the Pre-Key Stage Standards. The standards are very different sizes, strangely the higher standards are much smaller than the lower ones. The level sizes of the pre-key stages standards are probably based on the distribution of pupils. The ability range where most of the pupils will sit has been split into smaller levels, so that the Government can show the variance in ability between these pupils. The small number of pupils working at the lowest levels are statistically unimportant to the government, so a single larger level makes more sense to them.

When you are looking at progress of your pupils, have you taken the different level sizes into account? Are you simply using the percentage progress and assuming it is consistent value across all the different levels? If you are using our Progression Steps, you will see steps 4,5 and 6 are much smaller than the other levels. This is because they are linked to the Pre-Key Stage Standards. If you are using our Primary Steps, you might not have noticed that Year 1 only covers a developmental range of 9 months, not 12 months like Years 2 to 6. This is because the level below, Step 3 overlaps slightly with the Year 1 criteria.

In our new analytics platform, schools can now use our standardised scoring system. This system makes comparison between frameworks easier and standardises progress values. A pupil making 50% progress on a small level will have a lower standardised progress value than a pupil making 50% progress on a higher level. The aim is to make the analysis fairer for all pupils and the analytics more reliable for schools.

Cause vs Effect

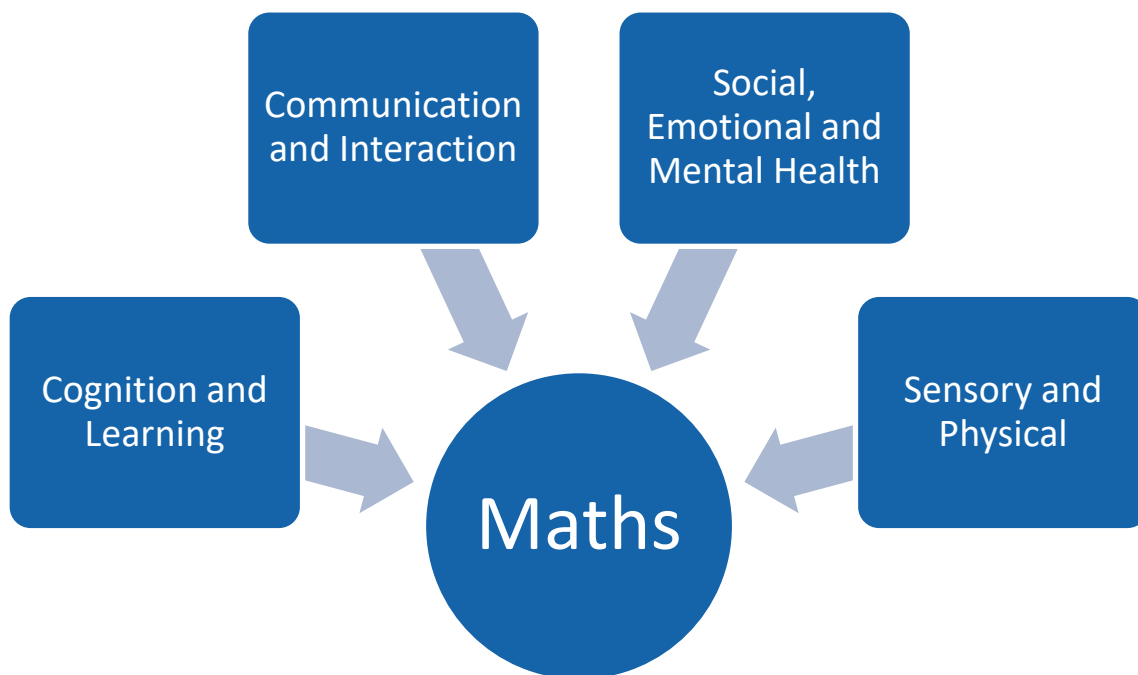
In my target setting document I also discussed cause and effect. Within that document I discussed cause and effect in terms of setting targets on what will cause the increase progress instead of targeting the actual effect, the increase in progress. If you want to improve the outcome in Maths, set targets around quality of teaching, the curriculum, training and use feedback, learning walks and observations to help judge success. Do not set a target of X amount of progress, it is wrong (Go read my 'Effective Target Setting for Pupils with SEND' document to find out more).

In this document, I am talking about cause vs effect in terms of progress. The Government sometimes thinks that to improve an area of education you just keep repeating it until the pupil finally achieves it. If a pupil struggles with phonics, just keep doing phonics until they get it. If a pupil is struggling with Maths, keep doing Maths, in fact do even more Maths, offer Maths tutoring outside of school time until they get Maths.

"Insanity is doing the same thing over and over and expecting different results."

(Apparently not Albert Einstein, instead Rita Raw Brown)

The effect could be a pupil struggling with Maths, but that is probably not the cause. If you only focus on the effect, you can spend lots of time focussing on Maths and see no improvement. There is so much more going on before we get to Maths.



In England we have the Four Broad Areas of Needs for pupils with SEND, other areas and other countries have similar areas. These four areas are relevant for all pupils, not just pupils with SEND. For pupils with SEND, we have already identified that the pupil is struggling with one or multiple areas. Any pupil could be struggling with one of these areas, it could be an undiagnosed need, or it could be an area they need support in for a short period of time. If a pupil is struggling in lessons, have a think about these areas as well as supporting them within the subject.

By supporting these areas effectively, we can remove barriers and we are likely to see progress in Maths. For some pupils you could spend time removing the barriers, repeat a Maths assessment and see an instant improvement. For others removing the barriers will improve learning going forward.

We all think everyone is the same as us. If I am struggling with something, they everyone must be struggling with the same thing. My daughter only realised she needed glasses when she commented 'how are we supposed to learn if they have boards you can't read from the back of the class', her friends confusion showed my daughter that she was the only one struggling to read. This was in Year 9. How long had this been going on? My daughter was obviously struggling in various lessons with reading off the board and had been for a while. Buying glasses and enabling her to see clearly had a big improvement and had an impact on her learning.

I chose to use glasses for that example for two reasons, the first is we all understand why people wear glasses and the impact it will have. It is easy to see (no pun intended) the impact of the glasses. The second is my daughter did not know she needed support. Do any of us know we need support? Do we recognise we are struggling or does someone else? As adults, our friends who know us have a reasonable understanding to know when things aren't right and can support us. This is not the same for children, there are so many factors and so many concepts and areas that children do not understand which makes it really hard for them to understand themselves, let alone others.

The image below is Maslow's hierarchy of need. Maslow suggests that for someone to reach their potential, their needs have to be met across a series of different areas. Although the image is a pyramid, which is widely used, the size of the levels are not representative, it is the order that is important. You can see how areas build on top of other areas. You also start to realise the importance of different areas and the impact they can have. A pupil's home life can have a very big impact on the first 3 levels, this in turn impacts the higher levels. If a pupil struggles to make friends or there is an issue in a friendship group, this has an impact on the levels above. This will all have an impact on their progress in Maths. We should be putting focus on these areas instead of Maths. If pupils are struggling in these areas, then supporting these areas is more important than their progress in Maths.



What is Progress Measuring?

If I am looking at progress in Maths for a large group of pupils, what am I measuring? Everything. I am looking at the following areas:

- Maslow's hierarchy of need (this will include areas like attendance, behaviour etc.)
- Four broad areas of need
- Quality of teaching
- Curriculum
- Teacher's curriculum knowledge
- Senior Leaders
- Quality of resources and teaching material

If progress in Maths is low, you can do some very quick detective work and might be able to identify that in other areas of the curriculum progress is Good. That rules out Maslow's hierarchy of need and as we are looking at a large group of pupils it probably isn't the four broad areas of need. It's not the pupils, it is how Maths is being taught, the time spent, the curriculum, the materials or something else.

Generally, when we are measuring progress, we aren't measuring pupils. We are measuring how effective our learning opportunities are, how well we know our pupils and how effective we are at meeting their needs.

Ongoing vs Termly vs Yearly

How often do you think about progress? How often should you? The answer is ongoing. This is very optimistic, but something we should be aiming for. We all know early intervention is key. We know assessment is at the heart of education, helping to shape future learning opportunities. We know that assessment informs planning, it is part of reporting to parents, it will inform discussions at parents' evenings, it will be discussed at pupil performance meetings and much more. So why do schools only assess once a term or even worse yearly for pupils with SEND? And why do they use tools which don't support teachers to be effective at supporting pupils with SEND?

Just to be very clear, I am not talking about ongoing whole school data collection and analysis. Once a term for whole school data works well there. I am talking about teachers assessing for themselves, to help plan next steps, to give them information to share with parents or other professionals.

I mentioned collecting whole school data termly, I just want to clarify what I mean. In the Making Data Work report by the Workload Advisory Group, published by the DFE in November 2018 it states that data should only be collected and often as it is able to be acted upon. What does this mean? Think of it as another APDR cycle. If I collect and then analyse data in December (Assess), I might identify changes that need to happen. This may be planned out in January (Plan). We will then implement the changes throughout February and March. Teachers can then review progress and record their assessments (Review). I can then collect and analyse the data again around Easter. Hopefully I will see an impact on the changes in that time frame. but I may not. For some changes it was a reasonable time frame, others will need longer. There is no need to collate data more frequently than that for whole school data, you won't be able to measure the impact of the changes you have implemented. Remember we are not really measuring pupils; we are measuring our effectiveness.

For pupils with SEND, I feel there needs to be more frequent data than 3 times a year. If a support strategy has no impact after 6 weeks, will it work after 12 weeks? If a pupil is struggling with something within a 6 week period, what is the likely that they will struggle in the next 6 weeks? It is not about producing lots of graphs and spending hours trawling through data every half term. It is about teachers having their assessments up to date every 6 weeks and a way for you or them to get an overview quickly and easily for pupils with SEND.

In Connecting Steps (B Squared's Assessment Software) we have a report that you can use to look at progress for groups of pupils quickly and easily over a half term, you can also compare to the previous half term. The graph will not tell you if there is anything wrong or if everything is perfect, that is down to your interpretation. It should give you questions to ask. Why has pupil A suddenly made more progress, why has pupil B made less progress? Why has pupil C, our highest ability SEND pupil, made less progress than other SEND pupils for the last 2 half terms? Why has pupil D made no progress in Reading? Go and ask those questions and listen to the answers. The teacher may have identified that something wasn't working and has just started something else. The pupil might be struggling, but the teacher is unsure of what to do. The pupil who has made exceptional progress may be using a new support strategy last term and made a breakthrough in a particular area. These conversations are important.

If you are collecting and looking at assessment data for pupils once a year, you are not doing it for the pupils. You are doing it for accountability, you are doing it to create data for someone else. If you are doing assessment data once a year, what are you using for annual reviews? Is it the last assessment data, however old it was? What are you discussing in reports or at parent's evenings? Are you using two different systems? Are you duplicating work and adding to staff workload?

Schools need to be using systems that support the teachers to support the pupils. The systems need to support the SENCO to support the teachers and the systems need to support leaders to make whole school improvements around SEND. It should be a tool that can be used ongoing by teachers to show progress and identify next steps. The system should support them to share meaningful information with parents. The system should be able to produce summary data at different levels and help different people at different levels to ask if progress is good enough.

Does a Graph Give a Judgement?

No! Let's use a simple example, let's use 3 graphs for Cadbury's Creme Eggs. Our interpretation and our judgement can change as we look at the different graphs. As we link the data together, we improve our understanding of the information given to us.

Cadbury Creme Egg Sales

If we were looking at a graph of the sales of Cadburys Creme Eggs over the last 3 years and last year Cadburys increased the number of sales by 20% compared to the previous year. Amazing!

Cadbury Creme Egg Marketing Costs

The next graph we look at from Cadburys shows their marketing spend on the Creme Eggs doubled last year compared to the previous year. They spent £5 million this year compared to the previous year's £2.5 million. If we link that to the first graph, we now know a very probable reason for the increase in the sales. You could suggest increasing marketing for the following year to increase sales further.

Cadbury Creme Egg Income

This graph is like the first graph, instead of how many eggs were sold, this graph shows the sales value. The income went up from £5 million to £6 million (20% increase). An extra £1 million income, Eggcellent!!!

We have 2 graphs showing an increase in sales and another graph showing an increase in marketing. We can see the marketing had an impact on sales. But when you link the 2nd graph and 3rd graph together there is a problem. The revenue increased by £1 million to £6 million, but marketing went from £2.5 million to £5 million. If we ignore any other costs, the profit was only £1 million last year but it was £2.5 million the year before. We can now see that increasing marketing did not give us the return we were hoping, and we should reduce our spend on marketing.

None of the graphs gave us a judgement, we applied a judgement to each graph, we decided it showed a result we wanted. It is only when we linked data together we saw the bigger picture. We could have done a nice simple costs vs income graph and showed the costs next to the income and it would have been obvious. How we represent data isn't always that obvious, we often know which type of graph to use going forward because we know what question we want answering.

I have also shown a nice simple scenario, but what other factors could have impacted an increase in sales? Was it that Cadbury changed their recipe? Is it the increase in the number of vegetarians and vegans who don't eat chocolate? Is it due to another factor? We can think about wider factors and do some research to inform our judgements. With all these likely factors, what would the impact have been if Cadburys hadn't increased marketing spend? Would the sales of Cadbury's Creme egg have dropped? Is there any data that could help answer this? A graph generally never gives us a judgement, it gives us questions. It might give an answer, but this will often lead to more questions.

What about Targets?

Some people feel you need to target an amount of progress for pupils so that you can measure pupil performance. You do not. In nearly all situations you do **NOT** need to set targets for pupils. A pupil achieving or not achieving a target tells you nothing about the pupil. It doesn't tell you anything about progress. Please stop setting annual or termly targets around progress for pupils with SEND. I have written a document called "Effective Target Setting for Pupils with SEND" which discusses this topic further.

How Should I Analyse My Data?

This is an important question and probably a question that most people don't know how to answer properly. When some people answer this question, they will discuss their process and all the spreadsheets they have created. Others might discuss the different groups they print out graphs for each term. Neither of them is really answering the question. They are answering the question "What process do you use to analyse your data?", not the more philosophical question of "How do you really analyse your data?".

Another way to look at it, every time I've asked someone who has written a book the question "how do you write a whole book?", they have always given the same sort of reply. It would be something like they would commit to writing a chapter a month and they had to schedule time in, they found it difficult, put it off and then spent a month writing the last half of the book in any moment they could. In the answer they focussed on the process of writing all of the words in the book. I am really asking the more philosophical:

- How do you come up with the idea of the book?
- How do come up with enough content to fill an entire book?
- How to you organise and structure it all?
- Do you work with someone else or is this all out of your own head?
- How didn't the worry of you putting your opinion out there and being judged not stop you from writing?

Questions

How you analyse your data is about asking and answering questions. If you don't have any questions, there is nothing to really analyse. You need to have questions you want answers to. There are some generic questions you can ask of every school's data; this will lead to more complex questions as you dig deeper. A few examples of these generic questions are:

- Boys vs Girls? Is there a difference? Why?
- How do Pupil Premium/PEF/PDG pupils compare to the rest of school? Why?
- Does ethnicity have an impact on progress or attainment? Why?
- How does progress compare to last year? Why?
- How do Looked After Children compare to the rest of the school? Why?

Asking these questions and looking at the data might tell you something about your school, but you have to ask why? The data can't tell you, that is a question you need to ask of your school, a question to discuss with senior and middle leaders. You may also get some red herrings. You may identify that a particular ethnicity has an average progress value lower than others. You may be trying to work out why, until you realise that there is only a single pupil within that ethnic group in your school and the pupil has SEND and is working out of year

group. It is not their ethnicity causing the lower progress value, it is their SEND. It is about asking the question and looking for answers.

Another source of questions is your school improvement plan. Are there any SEND specific targets? Was there a target about improving Writing across the school? Does the school data show an overall improvement, but your data for SEND pupils show there has been no improvement? Why?

The questions you ask should be relevant to your school. It could be areas of concern within the school or areas you have been working on and developing. You may even overhear conversations about different aspects of the school and the curriculum, can you use data to confirm people's feelings?

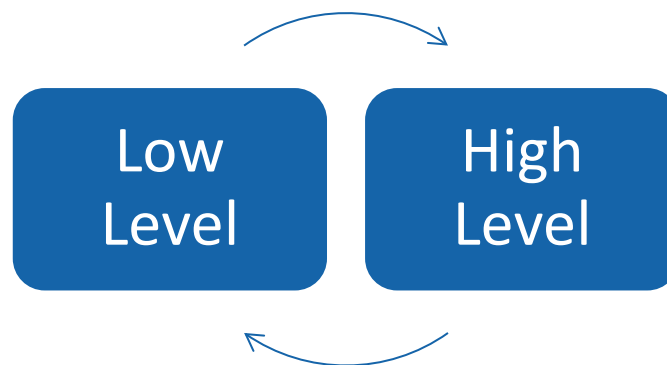
What Happens If I Don't Have Any Questions?

This shouldn't really happen. You always have the generic questions I mentioned before as a starting point. You will always generate the 'Why?' questions as you talk about the data. But perhaps the reason you don't have any questions is because you already know your data cannot provide answers. Perhaps you know that your data doesn't have the detail you need. If you simply record "Below" for pupils working out of year group in Writing, how can you ask Why? How can you identify where to focus the support in writing? If there are multiple pupils "Below", are they below in the same areas within writing or different areas? Do they need individual support, or can they be supported as a group? If you don't have questions, you can't improve outcomes.

Playing with Data

This is another big area people get wrong when analysing data. This is often due to the limitations of the data they collect, but it can also be due to having overly complex processes. Data needs to be easy to manipulate. You shouldn't need to go into Excel. There are different ways to manipulate your data to answer your questions or to find questions to ask.

Levels of Data



All of the teachers' assessments, all of the pupil data is low level data. There is lots of it, across different subjects, different terms, and different years. Some schools simply use Below, Expected and Above as their low-level data. This low-level data then gets summarised into higher level data. Whenever you are looking at your whole school data, this is high level data. Summarising the data should be simple, but depending on the system you are using it can become overly complicated. It can become complicated because of the processes people use.

To make data really work, as you are looking at your high-level data, you then need to be able to drill down into the low-level pupil data. It will help answer some of your questions or give even more questions.

Due to the processes people have in place, it can be hard to drill down into the low-level data. If you have two separate systems for low-level and high-level data, it makes it harder. Some schools simply don't have any real low-level data as they have just Below, Expected and Above. If every pupil in Year 6 was at "expected" throughout the year, but then 40% of pupils scored below 100 on their SATs, you will have lots of questions. Sadly, you have no data to drill down into. Using these simple assessments are great when everything is working well, but when your results suddenly drop, you cannot drill down into what aspects of Writing are pupils struggling with and why are they struggling in that area? And so many other questions.

Groups

Groups are your secret weapon when it comes to analysing data. We have all the usual groups that everyone uses, the Free School Meals (FSM), Pupil Premium, sex, ethnicity, EAL, primary need etc. In some schools these give valuable information, in some it gives no useful information. If you have 4 boys with Severe Learning Needs (SLD) in your school who are also in care, this will have an impact on several of these groups. They can skew the data and hide other anomalies. You need to be able to produce the whole school data with these pupils included, but so you can understand your school better, you should also produce data looking at these groups without these pupils included. Does excluding these pupils from the data highlight other pupils who need support?

There are lots of different types of groups, we have the typical cohorts we use to analyse data like FSM, EAL etc., we also have our class groups, year groups and key stages. When we look at data we should play with these different groups. If I am looking at Pupil Premium vs non Pupil Premium across the school and then look at the same graph for each year group, do they all show a similar pattern? Is there a year group where you are not closing the gap? It should be really quick to see what the impact of filtering to different year groups has on the data.

Schools use interventions and often have groups of pupils they support together. How does their progress compare to others? How effective has the intervention been? Are there other pupils who will benefit from the same intervention? Has it been so successful that we can look at how we use this to support all pupils?

Is there other data you can use to identify groups of pupils? How does progress compare between pupils with above 95% attendance and those below 95% attendance? How does progress compare for those with any form of exclusion or a certain number of behaviour points against the rest of the school? If you group students by quality of teaching, what does that show you? How much of an impact is the quality of teaching?

Another type of group to think about are those specific to your school. If you are a special school or school with a resource base, you may focus on specific needs or medical conditions. If you have school transport, is there a specific transport that always has issues? Are they always late in the morning? Does this have an impact on progress?

The final group to think about is when pupils fit into multiple groups. How does the progress of your autistic pupils in care compare to the autistic pupils not in care? How do they compare to pupils in care who aren't autistic and how do they all compare to the pupils who aren't in care and who aren't autistic? Does being in care have a big impact on your autistic pupils that you hadn't realised as you had never grouped them this way?

How you group your data is up to you, generally the groups you identify within your school will be the most important groups to use. If you have complicated processes around data or you have disconnected systems, being able to play with these different groups can take a lot of work so often won't be done. Typically they stick to the usual groups like FSM etc. and they don't get much from their data.

Dates

Once you've played with the groups and identified a group or groups where progress is lower than expected. The next question will be "why?" and one of the ways to help find an answer is to ask "when?". If you are looking at progress over a year and progress is low, has it been low the whole year? Was it low last year? When did it start to drop? If you only have one data point each year, there is not much you can do. If you have 3 or more data points you can hopefully identify when the progress dropped.

An obvious example would be looking at progress between September 2019 and July 2020. The progress for that year was for some reason low. I can play with the dates and see that progress in the autumn term was great, in line with expectations. The progress in the spring term showed a slight drop and there was no progress in the summer term. It is rather obvious in this example that the cause was COVID and schools going into lockdown and not returning in the summer term. Overall, the progress was low, but I can be confident by my data for the autumn and spring term that we were doing well.

If you play with the dates for your data, looking at different dates, how does that impact your data? Has the average attainment increased due to a pupil arriving/leaving? Does the change in progress correlate to a new way of teaching Maths? Can the increased progress in Reading be linked to when we introduced the therapy dog? Has the construction on the new building had an impact on pupil progress? Is it certain pupils?

Playing with the dates and then thinking about the changes around the school will really help you identify how the changes have impacted your pupils.

Sorting Data

This is similar to filtering but can make things more obvious. I could be looking at progress and filter by year group, class or level. If I sort by class, I might see a pattern that some classes make more progress than others. This could be expected as they are the more complex classes, or there could be no obvious explanation. If I filter to pupils on a particular level and then sort by age, I can look at which pupils are making the most progress. In reality, looking at pupils on the same level, I should see the lowest year groups making the most progress and older year groups making the least. It has taken the older pupils longer to reach the same attainment level.

Sharing Data with Others

There are 2 questions to answer when we are discussing sharing data. The first is what do I share, the second is how do I share it. What you share with teachers, senior leaders, governors and the local authority will be different. Within the school you can share individual pupil data, but with governors, the local authority and others you will need to share data that is anonymous, generally looking at groups of students. It is best practice to share only the relevant data with each group. Don't make one big collection of data that you share with everyone, the person trying to understand your data is likely to miss the part that is aimed at them amongst all the other data.

What Do I Share?

I can give a simple answer of "it depends" or "what is relevant to what is being discussed", but that doesn't help anyone. Many years ago, as a governor, I went on our local authority training for governors on understanding data. I had hoped they would give us an insight on questions to ask or what type of data we should expect to get. We did not. Instead, we had an hour and a half or so being taken through the Ofsted Data Dashboard, introduced to SATs and how important league tables were to the local authority. When asked "What data should we be using?" the response was simply "That is a conversation for you and your headteacher". After hearing

this many times, I now understand it means they don't know. The problem was our headteacher was not confident with data and every meeting the data was in a different format as she copied what others did without understanding why.

The data you share will be data that makes a difference to pupil outcomes. This could be areas for concern, areas of change or areas to show the impact of improvements. Does looking at graphs for 20 minutes of everything looking great help the school? No. Do you need to celebrate that everything is looking great? Yes. Does it need a graph? Probably Not.

Do not spend time creating graphs or reports that do not impact on pupil outcomes. The data you share should be based on agreed areas, like showing progress on areas in the school improvement plan. If you are asked for data that has no impact on pupil outcomes, do not spend time creating it or sharing it, it will distract away from more important areas of discussion. Someone may ask a great question, you may go away and investigate, when you come back to them, you may do this with a graph or report, but only if it shows something interesting that can identify areas to improve.

We have all heard the term "death by PowerPoint", when someone simply reads their slides, often the slides are simply full of text. To avoid this, use keywords or bullet points on the slides and talk around the key information. You can also reduce the length of presentations, by remembering to focus on the topic you are talking about.

It is the same with data. Don't share 100 graphs which don't say anything. Just share the 10 graphs that will drive change. Talk about what the data shows, talk about your further analysis, how you looked at other groups or looked at last year's data etc.. If progress across the school is great across English apart from Writing in Year 4, can you do one graph showing that the progress in Writing in Year 4 is much lower than the school average? Do you need to graph every year group in all the areas of English? Less graphs or tables means we all concentrate on what is important.

Across a school year, the data you share needs to be consistent. It makes it easier for people to understand and they can easily compare data to the previous term. What you share does not need necessarily need to be consistent year after year. The reasons for this are a) you need to allow for improving your processes and b) data that is relevant one year might not be relevant the year after.

How Do I Share Data?

This where some people struggle and the people who struggle are at polar opposite ends of the data spectrum. The people who really love data can share overly complex data that you need to be able to understand fully and draw your own conclusions from. They understand it fully and find it extremely useful, but forget or don't realise that others don't. The other end of the scale is those who don't understand data and are unsure of it. They can share data based on what someone else has done without fully understanding what the data is telling you. The problem with this is the data is based on a question from another school which might not fit your school.

The data you share needs to answer the questions you are asking in a clear, concise manner. It shouldn't be a big excel spreadsheet where you have to find the anomalies yourself and then work out what it means. You need to summarise your data in a way that is easy to understand, that answers the question your school is asking of the data. Typically, you want something that has some comparable aspect to it. If you are saying attendance is poor, showing the attendance percentage doesn't highlight the issue. If you add in the last few years attendance as a comparison, it will show how much attendance has dropped this year. You can also add in some national statistics, with the average attendance for the same period. You can also add in the

Governments attendance target. Adding this additional information will help people see how much of an issue the current attendance is.

If you are sharing data with other educational professionals, they may already have an understanding of the issue, but having additional information helps everyone have a clear understanding. If you are sharing data with Governors, they can struggle to understand the data used in education. The comparable data helps them to understand where the issue is and how big the issue is. If your progress in Year 4 is low this year, showing a comparison to the whole school average will help show how different the data is to the rest of the school. You could also add in a comparison for the same group the previous year (Year 3 last year) or last year's Year 4, who are now in Year 5. This will help people see if the issue is linked to the group of students or to all students when they are in Year 4, or neither. You may do further analysis and identify the issue. You don't have to share the additional data in any other way than an explanation of the data you found.

I have been in various Governor meetings or meetings with the LA discussing the data. We spent so long just going through the standard data for each year group in Reading, Writing and Maths because the headteacher thought we had to discuss everything in this way. We wasted so much time, everyone became numb to the data and didn't pay attention. There was no in-depth analysis of different groups or areas to identify areas for improvement. The aim of the data you share is to drive the "What are we going to do?" conversation. Making the data as simple and clear as possible helps people to understand the relevant data. You can then move on to the discussion around the next steps. In reality, the aim is to spend as little time looking at the data you have shared and as much time discussing solutions.

What do Ofsted Want to See?

They don't want to see your data. They want you to understand your data, they want your data to drive changes in your school and they want to see you implementing those changes. There is no folder full of graphs you need to make each year. There is no guidance what data you need to create. There is no requirement for your data to be in any format. They just want to make sure your data is helping you improve your provision.

Older Pupils Make Less Progress

If two pupils are working on the same level, the younger pupil is likely to make more progress. This may seem obvious to some people, but others miss this key bit of information. You will see a quote from the Progression Guidance covering this in the next section.

Some schools will have the same expectations for all pupils working at the same level. The reality is, that if a pupil has taken 12 years to reach Step 5 and another pupil has taken 6 years to reach Step 5, they are making vastly different rates of progress, I cannot simply use their current level and amount of progress when making judgements, I have to take their age into consideration. This sounds really obvious, but when you are trawling through spreadsheets of data, this can be easy to forget.

Progression Guidance 2010-2011

The Progression Guidance 2010-2011 was released a long time ago but was a really good document that was misunderstood. I thought I would share some additional information for those who may not have seen it or have bad memories of the document. The biggest issue with it is no one actually read the whole document. They used the tables at the back or the spreadsheet template that was available and then panicked at the data it produced.

At the heart of the document are some tables giving likely progress over a key stage based on the pupil's starting point. It gives a lower quartile (bottom 25%) median (middle 50%) and upper quartile (top 25%). The document recognised pupils progress at different rates and this is understood and accepted. When looking at progress over a key stage, a good school would have around 25% of pupils in the lower quartile, 50% in the median and 25% in the upper quartile. This reflected the national data the report shared.

One of the problems with the document itself was the size and quality of the dataset, it was only a small data set. Some of the cohorts included a reasonable number of pupils, others did not. There were also a number of different assessments systems used by schools that had a big impact on the quality of the data.

But the biggest problem is how the document was used by local authorities and schools. They used it extremely badly. They didn't really read the document and held schools to account using unrealistic expectations.

"This advice encourages schools to set targets in line with the highest-performing learners wherever possible."

Page 4, Progression Guidance 2010-2011

This was about being aspirational, aiming to achieve the upper quartile. The data within the document showed that only 25% of pupils achieved the upper quartile. Ofsted also confirmed that if your data had 25% in the lower quartile, 50% in the median and 25% in the upper quartile, then your data is what they expected to see. The target and the outcome were expected to be different. They wanted everyone to be aspirational, but they also understood that you are unlikely to reach that target for most of your pupils. One of the challenges the document was trying to solve was schools having low expectations for pupils with SEND.

The biggest problem with Progression Guidance is that a number of local authorities, School Improvement Partners (SIP) and schools themselves felt all pupils HAD to achieve the upper quartile and judged school performance based on this misunderstanding.

"Although age and prior attainment are the starting points for developing expectations, schools should take into account the nature of a learner's SEN and how effective provision has been in the past when setting targets and determining or commissioning provision."

Page 6, Progression Guidance 2010-2011

In the same way I am discussing progress being a measure of how effective your provision is, the Progression Guidance does the same. Are pupils not making progress as the provision is not effective?

"The data suggests that it is generally more difficult for older learners to make as much progress as younger learners over a key stage. For example, 79.8% of Key Stage 1 children make, on average, one or more P levels of progress across a key stage in English compared with 54.8% of Key Stage 2 children or 38.8% of Key Stage 3 pupils."

Page 17, Progression Guidance 2010-2011

80% of pupils made one or more P Levels of progress over key stage 2 (they are referring to the data at the end of key stage 1 to key stage 2), 55% of pupils did the same over key stage 3 and 39% in key stage 4. Yet at the time schools were targeting 50% of a P level each year and some wanted a whole P Level. The data in the document showed that these expectations were unrealistic.

"It also important to consider more holistic approaches to assessment for the small group of children working at very low levels of attainment where progress is not linear."

Page 17, Progression Guidance 2010-2011

The government recognised 11 years ago that pupils made non-linear progress, yet many schools still stuck with a purely linear way of reporting and judging progress. We released our reports showing non-linear progress around 2 years later, to celebrate this progress.

"Clearly, learners in the fourth quartile have made better progress than those in the first quartile, but it is important to remember that, depending on individual circumstances, a learner could be performing in the upper quartile and not have made good-enough progress, or could be in the lower quartile but still have made good progress. Intelligent use of data, other sources of information and professional judgement allow schools to ask the right questions and find the right answers about whether progress is good enough."

Page 19, Progression Guidance 2010-2011

This is probably the most important paragraph in the document, I knew it off by heart and pulled this page out in most meetings for a number of years. It highlights the amount of progress a pupil makes IS NOT a judgement! Judgements are created by humans using a basket of indicators, not spreadsheets or other systems.

"It is noted that some children do not learn in a linear way. They have uneven attainment profiles and will be making good progress even if they remain within the lower quartile. A few learners may not make any measurable progress or may regress across a key stage. High rates of absence can make it difficult for learners to progress. It is important to provide a more bespoke curriculum for these learners to meet their unique learning needs and to set small-stepped targets to enable them to generalise their skills in new contexts."

Page 19, Progression Guidance 2010-2011

The document mentions non-linear progress, regression, high rates of absence, a more bespoke curriculum etc. The document recognised so many of the challenges faced by schools supporting pupils with SEND.

"Schools should use the progression data as one of a basket of indicators when evaluating past performance or setting meaningful, ambitious targets."

Page 19, Progression Guidance 2010-2011

The document refers to data as part of the basket of indicators, you don't just use the data on its own. If you are interested in reading the Progression Guidance 2010-2011, let me know and I will send over my copy with all my highlights.

What is Good Progress?

Out of everything in this document, this is the hardest question. It is also the one of the ones I cannot answer for you.

For non-SEND pupils, the national dataset for SATs is large enough to look at a pupil's starting point and their final scores and identify if progress is good enough. 97.5% of pupils take SATs at the end of key stage 2. 59.6% achieved the expected standard across Reading, Writing and Maths. This means only 2.5% of pupils at the end of key stage 2 are assessed using the pre-key stage standards or the engagement model. This is a small data set covering a wide ability range - birth to 7 years developmentally, it also covers pupils with a variety of needs and disabilities. There are simply too many variables involved and too few pupils to try and use a dataset to identify what good progress is.

So how do we know if progress is good enough for pupils with SEND? With the rise of AI, we asked the AI chatbot, ChatGPT the following question - "What is good academic progress for a student who is working 1 year developmentally behind their peers?"

*"Good academic progress for a student who is working 1 year developmentally behind their peers would likely be determined by their individualised education plan (IEP) or 504 plan, which are created for students with disabilities or special needs to ensure they receive appropriate support and accommodations to help them succeed in school. These plans may include specific goals and benchmarks for the student to meet, such as catching up to grade-level standards or making a certain amount of progress each year. **Typically, good academic progress for these students would be measured by progress relative to their individual needs and abilities, rather than compared to their non-disabled peers.**"*

ChatGPT, January 2023

This reply is international, a 504 plan is the American term for an IEP and some of the language is very American, but the answer is correct. Judging progress for pupils with SEND should be based on their individual needs and abilities.

One of the words I haven't discussed yet is potential. Good Progress means you are supporting pupils to reach their potential. So how do you know what a child's potential is? This is a word that isn't used much when discussing progress as it is hard to define. For years we were told 2 sub-levels was good progress, but what happens if the child could achieve more? If a child could have achieved 3 sub-levels, but only achieved 2, how is that good progress? The idea of good progress for non-SEND pupils is based on a simple average across the large data-set. Some will achieve more, some will achieve less.

When we look at the potential of a pupil with SEND, it is not fixed, it is based on our current understanding of the pupil's needs and our ability to remove their barriers. What a pupil is capable of now, with the support they have, could be different in 6 months. If the child is non-verbal, but over the next 6 months we provide them with an iPad and teach them how to use text to speech software to express themselves, we have removed a very big barrier. The potential for that child and the future possibilities for that child has just been increased. By removing barriers, we unlock potential.

Different Ways to Judge Progress

In my Effective Target Setting for pupils with SEND document, I discussed the different ways to set expectations, the same rules apply when looking at progress.

Attainment of similar cohorts

Some schools develop targets and expectations based (or partially based) on the school's experience of previous pupils with similar needs and similar starting points. This means that practitioners or school leaders will review prior data and use it to make a judgement for a current pupil based on how much progress a previous pupil (or group of pupils) made.

There have been attempts to create national datasets for pupils with SEND. CASPA collated information from a variety of assessments systems when everyone used P Levels and Levels and curated a national dataset. Durham University also performed a similar service for schools. The Progression Guidance, published by the DFE in 2010 and 2011 was a national dataset helping schools to set targets for pupils with SEND. Progression Guidance had a small data set and the data and expectations it produced was significantly higher than produced by CASPA. Both systems had the same issue, inconsistency. The schools used lots of different systems and different approaches. The data produced was unreliable. With the removal of P Levels, there is no national data for pupils working below Year 1 or working below the level of the SATs. Any datasets that do exist are too small to provide any useful data.

This has been a very common way for schools to judge progress. It works well for non-SEND pupils, but for pupils with SEND it does not work. There are no reliable data sets for pupils with SEND, the variation of need and attainment is too great. Schools can build their own datasets over time, but with all the changes to curriculum and provision, the data set will not be reliable.

Do all pupils with autism in Year 4, working around Year 1 have the same barriers? Are they getting the same support? Does their autism impact them in a similar way? Is autism there only area of need? The problem is that in these data sets you cannot answer any of these questions. They should not be used.

Prior Attainment and Progress

Schools can look at a pupil's prior attainment and progress to judge progress. This process will give a school individualised expectations for all learners.

Prior attainment is one of the first places to look at when judging progress. It is the best starting point. If a pupil made 30% progress last year and there has been no changes in provision, it would be reasonable to expect 30% progress this year. Provision shouldn't stay the same year on year as schools should be looking to improve the provision to improve outcomes. There are also many other factors that have an impact on outcomes. This is why prior attainment and progress is only a starting point.

Formula

Some schools simply have a formula they have created, or they have been given. Where the formula comes from or what it is based on is sometimes never known. It might be as simple as an amount of progress all pupils with SEND should make over a year. This simply doesn't work. It is not based on anything scientific; it hasn't taken anything about the pupils into account. It just sets schools up to fail. Two things are likely to happen. The first, and the most likely is where pupils don't achieve the target. This leads to a feeling of failing in the school, yet the school only failed to meet a made up target. The other thing that could happen is that the pupils achieve the target, but only because it was too easy. This sounds great, until someone digs deeper and uncovers that progress isn't good enough and they had been failing their pupils. When we had the P Levels, people used to rely on the CASPA dataset. When the Progression Guidance data set was released, it showed a very different picture. Schools that showed favourably against the CASPA data set did not show favourably against the Progression Guidance and it was a very big shock for some schools.

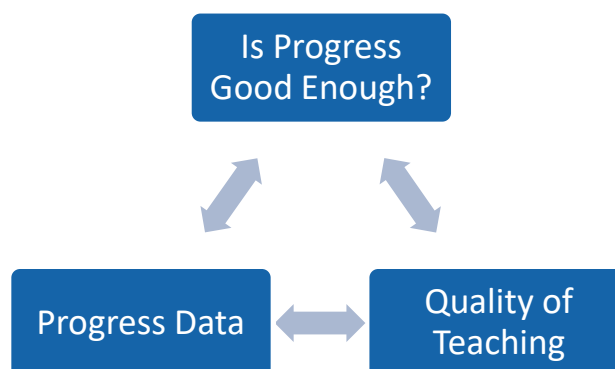
Do you want to base your judgements on pupil performance on a formula someone else created? Do you want to base all your judgements around your staff, pupils, curriculum etc. on a formula created by someone who has never seen your school?

Types of Progress

Earlier in this document I talked about the different types of progress that can be measured, the linear, non-linear and the levels of achievement/engagement. All are valid ways of looking at progress. We also have the observations, conversations, and feedback. Just because you can't graph these, doesn't mean they aren't valid. It is not the amount of progress or the type of progress that decides if it is good enough, it is how you interpret the progress they have made.

Triangulation

I mentioned triangulation when I discussed what data is, it is a useful way of validating information.



If you cannot answer if your progress is good enough using your progress data alone, look at the quality of teaching across the school. As a Governor I was taught to always seek out other information to reinforce the data I am being given. If the headteacher says progress is great, but we can see the quality of teaching is 'requires improvement', how can progress be good? Is the data the headteacher sharing reliable? Are the judgements from staff reliable?

"Even the children who find learning most difficult do not learn in fundamentally different ways from other children. They require more expert, rigorous, evidence-based teaching, as well as an ambitious and well-designed curriculum that emphasises literacy, speech, language and communication."

Page 59, Ofsted Annual Report 2021-2022

Ofsted understand that there is a direct link between the quality of teaching and pupil outcomes. If the quality of teaching is outstanding, then the progress must also be outstanding. If teaching is inconsistent, and only sometimes good or outstanding, then your progress is unlikely to be good enough. This triangulation will give you more reliable data. Instead of just taking progress data on its own, you can use what you are seeing in observations, learning walks etc. to help decide if progress is good enough.

Judging Progress

We come back to the question of what is good progress? Only those who really know a pupil can answer that.

What is good progress for one pupil might not be good progress for the next. Progress needs to be judged individually in a way that suits the pupil, based on their needs.

Answering the question 'Is progress good enough?' depends on which version of the question you are asking. Are you asking -

Has the pupil made good progress with the quality of teaching and support available?

OR

Has the pupil made good progress based on the number of learning opportunities in this area?

OR

Has the pupil made good progress?

Sadly, the answer to these questions can be very different. If you cannot remove barriers for a pupil and you are not effectively supporting them, the progress cannot be good. But the school might feel the pupil is making good progress. They are making the best progress they could achieve because the school doesn't see or is unable to remove the barriers.

What happens if you are spending lots of time supporting a pupil's emotional regulation, their communication skills, and their relationships with others. The reason you are doing this is you know these are really important areas and important for the pupil's future. What happens if in reality you have only spent 30 hours working on Maths this year, is their progress good enough? Their progress could be amazing based on the time spent in Maths, but compared to other pupils it could be significantly lower.

If we remove the barriers and support them effectively, the amount of progress could increase drastically. We can now really see what good progress looks like for a pupil. This is what we should really be aiming for, what is good progress for them, with barriers removed, not what is good progress for them, without removing barriers.

Summary

Monitoring and analysing pupil progress is a big part of school improvement. It is the reason we do it. With non-SEND pupils it is easier to see a correlation between changes in the school and pupil performance. If you try a different approach in Year 6 this year, you can compare to last year and it will be a reasonable comparison. When it comes to SEND, the number of pupils, type of need and level of complexity continually changes, it is hard to see the correlation between the changes you make and your data. It is hard to make sweeping statements. It is all about individual pupil data.

You can play with dates, play with groups and sort your data, and you will see patterns in your data. This will help you ask questions about your data. You will have lots of questions around why your data looks the way it does. Finding answers to these questions is really important, it will help drive change, it will inform your school improvement plan.

Data Does Not Give Judgements

You won't get a judgement from your data. That is something the people in the school apply to the data. It becomes complicated, it depends on the perspective you are taking. If pupil A has spent significantly less time working on Maths and has made significantly less progress compared to pupil B, is the progress good enough? In terms of the time spent, it could be yes. If you removed the pupil's barriers, it could have been higher, so you might judge it as not good enough progress. The first is a judgement on the pupil, the second is a judgement on the provision and the challenges faced. You may decide that although progress wasn't good enough in Maths, the pupil made good progress in the areas you focussed on. You could decide the overall progress is good enough.

Low Progress does not mean Bad Progress

Just because a pupil hasn't made much progress in an area, it doesn't mean it is not good enough. There are so many factors you need to take into consideration when applying your judgement. These can include:

- What was the pupil working towards this year?
- How does progress compare to last year?
- Are we measuring the right thing?
- In what areas has the pupil made progress?
- What changes have we implemented and what effect has this had?
- How does their progress compare to other pupils working at the same level?
- Have there been external factors?
- What support has been put in place?

You might feel they could make more progress, but within their current context, is the progress good enough? It is what you do next that is important. What are you changing to remove the barriers? How are you helping them to make the progress you feel they can make?

Do You Need Judgements in All the Different Areas?

We are used to giving judgements around progress in Reading, Writing and Maths (or similar). The question is why are we using standard areas of judgement? In this document we have discussed academic, non-academic, the four broad areas of need, Maslow's hierarchy of need. We also have IEPs and EHCPs. If a pupil requires an EHCP or an IEP, this means that the school has already identified that the pupil needs an increased level of support. The school will often introduce an individualised curriculum, with individualised outcomes based on their EHCP or IEP outcomes. This will cover much more than English and Maths. If we have an individualised curriculum with individualised outcomes, why aren't we using individualised expectations?

If a pupil at the start of the year wouldn't enter the classroom and the school have spent the whole year supporting the child to attend lessons and engage, the pupil has made amazing progress with their SEMH and their Communication and Interaction this year. However, they won't have made lots of progress in Reading, Writing and Maths. Is their progress in Reading, Writing and Maths important at this point? Most people would look at where the pupil was to where they are now and say the pupil has made amazing progress. If you look at Reading, Writing and Maths, they haven't. Do we need those judgements, or could we just have an overall judgement, focussing on what is important for the pupil?

Measure What You Value, Don't Value What You Measure

The whole reason we have data is to improve outcomes for pupils and to increase the quality of the provision. What has happened in a number of schools is they focus on certain areas and are changing their provision to make their data look better. It is not about improving pupil outcomes. To improve Maths they feel they need to increase the time spent doing Maths. They narrow the curriculum, they reduce time spent on the soft skills to increase time spent doing Maths. They forget about all the things that pupils need before they can make progress in Maths. Schools should not be changing their curriculum, the opportunities and support they offer because their focus is targets in English and Maths and this is what they are told is important.

You are Analysing Data to Improve Provision

Assessment and monitoring progress helps schools to improve pupil outcomes. Comparing progress to last year, looking for patterns of different cohorts and then changing provision is the best way to improve outcomes.

"One of the most important purposes of assessment is to inform teaching and learning. Assessment enables schools to track pupil progress accurately, to design future learning, to adjust, commission new or decommission existing provision and to review expectations and learning trajectories."

Page 5, Progression Guidance 2010-2011

I feel that many schools use data in an over complicated way, adding more complexity than required, costing schools time and increasing stress. They forget what they are analysing, they believe they are analysing pupil performance, in reality they are analysing the whole school. They are analysing the quality of teaching, the curriculum they offer their students, the parental engagement, the support senior leaders offer staff and so many other things. Pupil progress is showing the effect of all the changes you make around the school.

Keep it Short and Simple

Keep It Short and Simple (KISS). The acronym is actually Keep it simple stupid!, but this version is more acceptable. The KISS principle states that most systems work best if they are kept simple rather than made complicated; therefore, simplicity should be a key goal in design, and unnecessary complexity should be avoided. This applies to everything! It is about designing things for other people, not for you. You may love data and get a warm fuzzy feeling when you double click on the Excel icon. Most don't. Most people fear data, due to the way it has been presented to them over the years.

Data shouldn't be complicated. You may have a deep dive into your data, you might get lost in your graphs and find something amazing that can make a big difference to your school. You need to summarise that data. You need to find a simple way of sharing the data so that others can understand it. If you use 50 graphs, 5 mind maps and 3 spreadsheets to explain your data, 99% of people won't understand it. It needs to be one or two simple graphs that only show the relevant information.

If people can't understand your data, they cannot be part of a discussion around the data. If they cannot be part of the discussion, they will not 'buy in' to any changes that are recommended. The changes are likely to fail. Use a simple graph to share the data, this will drive discussion as they can see the problem. People will be onboard with the proposed solutions. The next term or next year, you can use the same graph to show the impact of the changes. It is all about KISS.

If you use our analytics platform, you will see it embodies the KISS principles. It is sharing extremely complicated data in clear, easy to understand ways. It allows you to drill down in lots of different ways, compare different groups so you can highlight areas to improve and areas to celebrate.

And just to be clear, I appreciate the irony of me introducing KISS on page 32!

Feedback

I welcome all feedback on this document and I enjoy discussing data, progress and targets with schools. My aim is to improve the use of data in schools so they can be more effective and see data as a useful tool, not a burden. Being able to get a wide range of opinions and experiences help us all to develop our knowledge.

If you would like to discuss anything from this document, please send me an email – dale@bsquared.co.uk.

Appendix A: Asking ChatGPT About Progress for Pupils with SEND

ChatGPT is an AI you can chat to. You can ask it questions, and it will answer you, using all the information at its digital fingertips. You can ask it to create lesson plans, adapt lesson plans for pupils with dyslexia etc. We have been playing with ChatGPT and asking it various questions. Here are some of the questions I have asked ChatGPT about progress for pupils with SEN.

What is a good way to assess progress for SEN pupils?

Assessing progress for SEN (Special Educational Needs) pupils requires a tailored approach that takes into account the specific needs of each individual student. Here are some general suggestions for assessing progress for SEN pupils:

- 1. Establish clear learning goals: Set clear, achievable learning goals that are specific to the student's needs and abilities. These goals should be aligned with the student's individual education plan (IEP) and should be reviewed regularly.*
- 2. Use a variety of assessment methods: Use a range of assessment methods, including observation, performance tasks, and self-assessment, to gather information on the student's progress. This will give a more complete picture of the student's strengths and weaknesses.*
- 3. Adapt assessment methods: Adapt assessment methods to suit the student's individual needs. For example, a student with visual impairments may require alternative assessment methods such as oral testing or braille materials.*
- 4. Monitor progress regularly: Monitor the student's progress on a regular basis and make adjustments to the learning goals or teaching strategies as needed. Regular feedback and communication with parents and other professionals involved in the student's care can also help to ensure that everyone is on the same page.*
- 5. Celebrate successes: Celebrate the student's successes and achievements, no matter how small. Positive reinforcement can help to build the student's confidence and motivation, which can in turn lead to further progress.*

Ultimately, assessing progress for SEN pupils requires a flexible and individualized approach that takes into account the student's unique needs and abilities. By setting clear learning goals, using a variety of assessment methods, adapting assessment methods as needed, monitoring progress regularly, and celebrating successes, educators can help to ensure that SEN pupils make meaningful progress towards their learning goals.

I love this answer. It is about what is important for the pupil. It hasn't mentioned Reading, Writing or Maths. Reading, Writing and Maths is a lens we all seem to automatically look through in schools, with everything else coming second. This needs to change. Assess the progress the pupils are making in an appropriate way and celebrate the progress they are making.

What is non-linear progress?

Non-linear progress refers to a type of progress that is not steady or consistent over time, but rather involves fluctuations or changes in the rate of progress. In other words, non-linear progress is characterized by ups and downs in the rate of improvement, rather than a steady upward trajectory.

Non-linear progress can be seen in a variety of contexts, including learning, skill development, and personal growth. For example, a student may experience periods of rapid improvement followed by plateaus or setbacks in their academic progress. Similarly, an athlete may experience periods of rapid improvement followed by periods of slower progress or even setbacks in their athletic performance.

Non-linear progress can be challenging to understand and measure because it does not follow a predictable pattern. However, it is important to recognize that non-linear progress is a normal part of the learning and growth process, and that setbacks and plateaus are to be expected. By acknowledging and accepting non-linear progress, individuals can approach their goals with a more realistic and resilient mindset, and develop the perseverance and resilience needed to continue making progress in the face of setbacks.

At B Squared, we use non-linear progress to talk about spiky profiles, when progress is made across different levels at the same time. This a different definition to what we use and one I haven't come across before. I like the way it addresses that progress isn't consistent, that progress changes over time for a variety of reasons.

What do you call progress that is made when pupils learn things in a different order to what is planned?

Progress that is made when pupils learn things in a different order than what is planned is often referred to as "unplanned progress" or "unexpected progress." This type of progress can occur when students demonstrate an understanding of a concept or skill before it is formally taught, or when they make connections between different topics or ideas in ways that were not originally anticipated.

Unplanned progress can be a positive indicator of a student's ability to think creatively and independently, and can be a valuable opportunity for teachers to adjust their instruction to better meet the needs of individual students. However, it can also present challenges for teachers who must be flexible and adaptable in their approach to teaching, and who must be able to recognize and respond to unexpected progress as it occurs.

Overall, unplanned progress is an important aspect of the learning process, and teachers should strive to create an environment that encourages creativity, independent thinking, and discovery, while also providing the necessary structure and support to help students achieve their learning goals.

With this question I was trying again to talk about progress made on different levels at the same time. I felt this answer focussed on the word planned and discussed progress that wasn't planned. I tried to clarify what I meant with my next question.

How would you talk about progress when a pupil's abilities are vastly different in different areas, eg they can decode text really well, but they struggle to understand what they are reading?

When a pupil's abilities are vastly different in different areas, it can be challenging to talk about progress in a meaningful and accurate way. In this case, it may be helpful to focus on progress in each individual area of ability separately, and to develop specific goals and strategies for addressing areas of weakness.

For example, if a student is able to decode text well but struggles to understand what they are reading, progress might be measured by improvements in comprehension skills such as identifying key ideas, making inferences, and summarizing information. Teachers might set specific goals for the student in these areas, and track progress over time through regular assessments and informal observation.

It may also be helpful to consider the student's strengths and interests when developing strategies for addressing areas of weakness. For example, if the student enjoys visual learning, teachers might use graphic organizers or other visual aids to help them better understand what they are reading.

Overall, when talking about progress for a student with vastly different abilities in different areas, it is important to focus on individualized goals and strategies, and to celebrate progress in each area separately. By acknowledging and building on the student's strengths, and by providing targeted support to address areas of weakness, teachers can help the student make meaningful progress and achieve their full potential.

This is what we at B Squared describe as non-linear progress, when pupil have different abilities in different areas. This is another great answer from ChatGPT. Progress should be looked at individually and it suggests not looking at subjects like reading, instead looking at the areas within if it is a more effective way of looking at progress.

Is assessing progress in engagement important?

Assessing progress in engagement is important because engagement is a critical component of the learning process. When students are engaged in their learning, they are more likely to be motivated, interested, and invested in the material, which can lead to better learning outcomes and increased academic success.

Assessing progress in engagement can help teachers to identify areas where students may be struggling or disengaged, and to adjust their teaching strategies accordingly. For example, if a student is consistently disengaged during a particular activity or lesson, teachers may need to find ways to make the material more interesting or relevant to the student's interests, or to provide additional support or guidance to help the student stay engaged.

In addition to improving academic outcomes, assessing progress in engagement can also help to promote the development of social-emotional skills such as self-regulation, self-awareness, and communication. When students are engaged in their learning, they are more likely to take ownership of their learning process, to set goals, and to collaborate effectively with others.

Overall, assessing progress in engagement is an important aspect of the teaching and learning process, and can help teachers to identify areas where students may need additional support or adjustment in order to achieve their full potential. By promoting engagement and motivation, teachers can help students to develop the skills and knowledge they need to succeed both in school and beyond.

So far the discussion had focussed on skills that had been achieved, but before pupils can achieve, they need to engage. It is a good answer, it talks about adapting what is being taught to keep pupils engaged and supporting pupils to be engaged.

What are the barriers to progress for pupils with SEN?

There are a number of barriers to progress for pupils with SEN (Special Educational Needs), which can include:

- 1. Lack of appropriate support: Pupils with SEN may require additional support, accommodations, or modifications to the curriculum in order to make progress. When this support is not provided, it can be a major barrier to progress.*
- 2. Limited access to resources: Pupils with SEN may require specialized equipment or resources in order to fully engage in the learning process. When these resources are not available or accessible, it can hinder progress.*
- 3. Negative attitudes and stereotypes: Pupils with SEN may face stigma, discrimination, or negative attitudes from others, which can impact their confidence and motivation to learn.*
- 4. Communication barriers: Pupils with SEN may have difficulty communicating their needs, thoughts, or ideas, which can impact their ability to fully engage in the learning process.*

5. *Health-related barriers: Pupils with SEN may have physical or mental health conditions that can impact their ability to learn or participate in school activities.*
6. *Unsupportive learning environment: The learning environment, including the physical space and the social and emotional climate, can impact a student's ability to learn and make progress. An unsupportive or unsafe environment can be a barrier to progress.*
7. *Poor teacher training and awareness: Teachers may not always have the necessary training, knowledge, or awareness to support pupils with SEN effectively, which can be a barrier to progress.*

Overall, addressing these barriers requires a collaborative effort between teachers, school administrators, families, and outside specialists to create an inclusive and supportive learning environment that meets the needs of all pupils. By addressing these barriers, pupils with SEN can have a greater opportunity to make progress and reach their full potential.

This is a really great answer. All of the bullet points apart from 4 and 5 are about the school, the environment, the teaching and the support given to the pupil. Bullet point 4 talks about communication barriers, this is reflecting the students ability, but also how the school supports the pupil. Bullet point 5 can be a big barrier for pupils, and is the only one that is solely about the pupil. This list highlights, we can remove a number of barriers by changing how we support SEN pupils.

What are the barriers to progress for pupils with SEN in Maths?

There are several barriers to progress for pupils with SEN in Maths, which can include:

1. *Difficulty with number sense: Pupils with SEN in Maths may have difficulty understanding and working with numbers, which can be a significant barrier to progress.*
2. *Limited working memory: Pupils with SEN may have a limited working memory, which can make it difficult to remember and apply key mathematical concepts and procedures.*
3. *Challenges with visual-spatial reasoning: Pupils with SEN may struggle with visual-spatial reasoning, which is an important skill for understanding mathematical concepts such as geometry and measurement.*
4. *Limited understanding of mathematical language and symbols: Pupils with SEN may have difficulty understanding the complex vocabulary and symbols used in Maths, which can make it difficult to follow instructions or understand mathematical concepts.*
5. *Difficulty with problem-solving: Pupils with SEN may have difficulty with problem-solving and applying mathematical concepts to real-world situations, which can be a significant barrier to progress.*
6. *Anxiety or lack of confidence: Pupils with SEN in Maths may experience anxiety or a lack of confidence in their mathematical abilities, which can impact their motivation to learn and make progress.*
7. *Unsupportive learning environment: An unsupportive learning environment can be a barrier to progress for pupils with SEN in Maths. This can include a lack of access to appropriate resources, insufficient support or guidance from teachers, or negative attitudes towards Maths.*

Overall, addressing these barriers requires a collaborative effort between teachers, school administrators, families, and outside specialists to create an inclusive and supportive learning environment that meets the needs of all pupils. By providing targeted support and accommodations to address these barriers, pupils with SEN in Maths can have a greater opportunity to make progress and achieve their full potential.

I followed up my previous question with the same question but focussing on Maths. This time ChatGPT has identified areas within Maths that pupils with SEN may struggle with. It did also provide the same unsupportive learning environment as my previous question. Even when looking at Maths, we need to take into account the answers from the previous question.

Should you compare progress of pupils with SEN against pupils without SEN?

It is not appropriate to compare the progress of pupils with SEN against pupils without SEN because they have different learning needs and abilities. Every pupil has a unique set of strengths and challenges, and it is important to assess progress based on their individual goals and needs.

Comparing progress between pupils with and without SEN can create an unfair and inaccurate comparison, which can be demotivating and potentially damaging to the self-esteem of pupils with SEN. It can also undermine the progress they have made and the efforts they have put in to achieve their individual goals.

Instead, progress for pupils with SEN should be measured against their own starting points, individual targets, and progress over time. This approach recognizes the unique learning journey of each pupil and the progress they have made relative to their own abilities and starting points.

Assessing progress in this way also enables teachers to identify any gaps or areas where further support may be required and make adjustments to ensure that pupils with SEN receive the appropriate support and resources to continue making progress.

We all know this, but yet we are still asked for this comparison. Somehow some people believe that changing to a new scheme or curriculum or improving teaching is all that is need to remove all of the barriers ChatGPT listed above. Yes, we can remove some barriers, but not all. Assessing progress for pupils with SEN should be individual and using a tool with the appropriate level of detail. If you feel as a school you don't have time or you don't have the money, please see bullets 1, 2, 3, 6 and 7 from the question "What are the barriers to progress for pupils with SEN?" above.

If we know how to judge progress for pupils with SEN, what are the reasons we aren't doing it?

There are several reasons why progress for pupils with SEN may not always be assessed in the most effective way, including:

- 1. Lack of training: Teachers may not have received adequate training in how to assess progress for pupils with SEN or may not have been given the necessary tools or resources to do so effectively.*
- 2. Limited time and resources: Teachers may feel overwhelmed by their workload and may not have the time or resources to devote to assessing progress for pupils with SEN as thoroughly as they would like.*
- 3. Misconceptions about SEN: There may be misconceptions among teachers, parents, or school administrators about what progress looks like for pupils with SEN, which can impact how progress is assessed and measured.*
- 4. Focus on standardized testing: There may be a heavy emphasis on standardized testing and academic achievement, which can overshadow other important aspects of progress, such as social and emotional development, communication skills, and independent living skills.*
- 5. Lack of collaboration: Effective progress assessment for pupils with SEN requires collaboration and communication between teachers, parents, and outside specialists. When these parties are not working together effectively, it can be difficult to accurately assess progress and identify the appropriate support and resources needed.*

Overall, addressing these challenges requires a collaborative effort between teachers, school administrators, families, and outside specialists to ensure that progress assessment is carried out in a meaningful and effective way that meets the needs of pupils with SEN. It is important to recognize that assessing progress for pupils with SEN is a complex process that requires ongoing evaluation and adjustment in order to support their individual learning needs and goals.

I am loving the answers ChatGPT gives. It uses all the documents, websites, books it has access to, to create a summary of the information. It is crystal clear and I agree with everything here.

What are the implications of including pupils with SEN when comparing progress between different schools?

Including pupils with special educational needs (SEN) when comparing progress between different schools can have important implications for the interpretation and use of the data. Here are some key considerations:

- *Comparison of progress: Comparing progress between schools that have different proportions of pupils with SEN can be misleading. Pupils with SEN may require additional support or accommodations that are not reflected in progress data. This can affect the overall progress of the group of pupils with SEN and, therefore, the overall progress of the school.*
- *Contextual factors: The progress of pupils with SEN can be affected by a range of contextual factors, including the quality and level of support provided by the school, the expertise of the teaching staff, and the availability of resources. These factors can vary significantly between schools and can affect progress data.*
- *Accountability: Including pupils with SEN when comparing progress between schools can have implications for accountability. If the progress of pupils with SEN is lower than the progress of pupils without SEN, this can lead to negative perceptions of the school, even if the school is providing high-quality support for pupils with SEN.*
- *Validity and reliability of data: It is important to ensure that progress data is valid and reliable, regardless of whether pupils with SEN are included. Data should be collected using appropriate assessment methods and should be interpreted and reported in a way that is fair and accurate.*

Overall, including pupils with SEN when comparing progress between different schools can be a valuable exercise, but it requires careful consideration of the implications and limitations of the data. It is important to ensure that the data is used appropriately and that any contextual factors that may affect progress are taken into account.

I could keep asking ChatGPT questions forever. Again, the information it has access to is the same data we all have access to and it comes to some very clear conclusions that we already knew. Yet we don't do it. If the Government changed the way it looks at data and did the overall school, data for SEND pupils and data for non-SEND, it would be a much more inclusive system.

Should we set progress expectations for SEN pupils? What benefit does it give? What are the drawbacks?

Yes, it is important to set progress expectations for pupils with SEN. Doing so can provide a clear understanding of a pupil's strengths and areas for development, and help to guide their learning journey. However, it is important to set realistic and achievable expectations that are tailored to the individual needs and abilities of the pupil.

Setting progress expectations for pupils with SEN can provide a number of benefits, including:

1. *Clarifying goals: Setting clear progress expectations can help pupils and their families understand what they are working towards and what steps need to be taken to achieve their goals.*
2. *Providing motivation: Having clear expectations can motivate pupils to work towards their goals, and can provide a sense of accomplishment and satisfaction as they make progress.*
3. *Guiding instruction: Expectations can help guide instruction by highlighting areas that need additional focus and support.*
4. *Demonstrating progress: By setting clear expectations, progress can be more easily measured and tracked, helping teachers and families understand the effectiveness of interventions and supports.*

However, there are also potential drawbacks to setting progress expectations for pupils with SEN, including:

1. *Overly ambitious expectations: Setting expectations that are too high or unrealistic can lead to frustration, anxiety, and a sense of failure for pupils who may already struggle with their learning.*
2. *Underestimating potential: On the other hand, setting expectations that are too low may limit a pupil's potential and prevent them from reaching their full capabilities.*
3. *Limited focus: Focusing solely on academic progress can neglect other important areas of development, such as social and emotional skills, communication, and independent living.*
4. *Disregard for individual needs: Setting progress expectations without taking into account the individual needs and abilities of the pupil may not accurately reflect their progress or provide appropriate support.*

Overall, setting progress expectations for pupils with SEN can be beneficial when done in a thoughtful and individualized way that takes into account their strengths and areas for development. It is important to focus on realistic and achievable goals that are tailored to the individual needs of each pupil, and to prioritize a holistic approach to progress assessment that considers all aspects of their development.

So setting expectations or targets are good, but they need to be achievable, realistic and based on the individual needs and ability. Of the 4 drawbacks, I see 1, 3 and 4 a lot. Targets or expectations set by a formula or system that cannot take the individual needs of the pupils should not be used. I especially like the 3rd bullet point of the drawbacks, limiting focus to only academic areas. Yet this is what so many schools do.

Is "B Squared" a good tool to measure progress?

"B Squared" is a tool used in the United Kingdom to track and assess the progress of children with special educational needs and disabilities (SEND) against the National Curriculum. It involves a set of assessment frameworks that cover a range of developmental areas, including communication, cognition, and physical development.

While B Squared can be a useful tool in tracking progress for children with SEND, it is important to note that it may not be appropriate or effective for all students or contexts. The tool is specifically designed for use in the UK educational system and may not be applicable or relevant in other countries or settings.

In addition, measuring progress using any tool or metric should always be accompanied by a broader range of assessments and data collection methods, including observations, student work samples, and feedback from teachers, parents, and students themselves. This helps to ensure that progress is measured accurately and comprehensively, and that any areas of difficulty or concern are identified and addressed in a timely and appropriate manner.

I had to ask this question as I was curious about the response it would give. It is a good answer, although it only mentions the National Curriculum, not what we do in Scotland or Wales. I agree that our software shouldn't be used on its own, it will not and should not give you a judgement. The Progression Guidance also agrees, schools shouldn't rely on one system, you need to use a basket of indicators.