Consideration of Maths Anxiety/resilience in a diagnostic assessment of Maths

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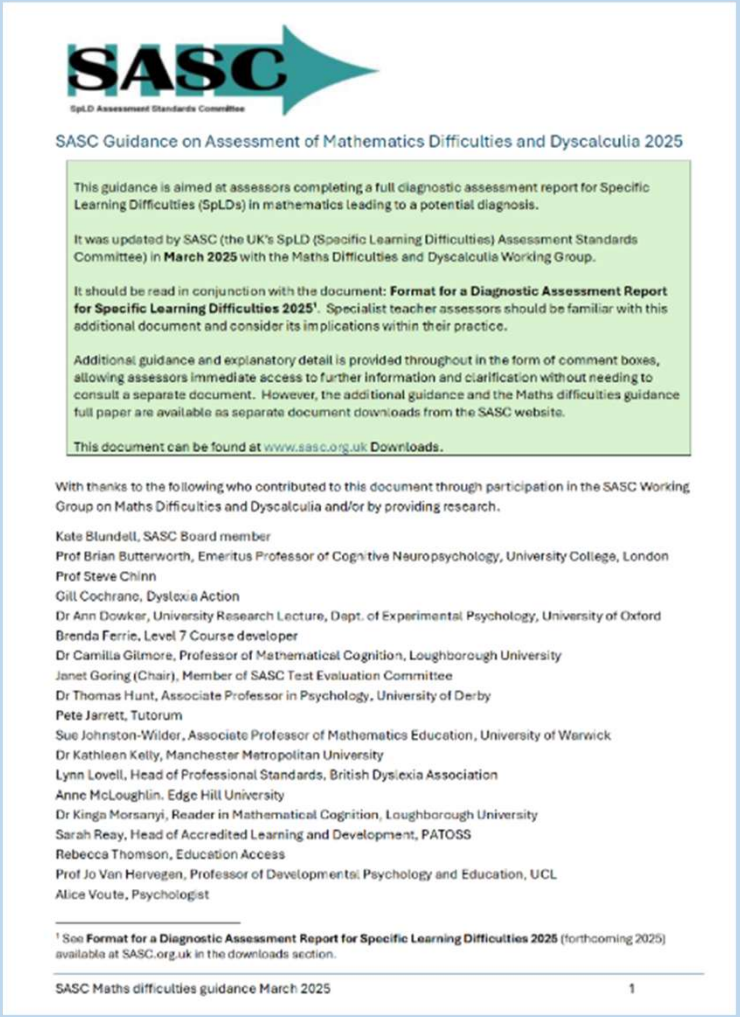

SASC

SpLD Assessment Standards Committee

SASC Guidance on Assessment of Mathematics Difficulties and Dyscalculia 2025

This guidance is aimed at assessors completing a full diagnostic assessment report for Specific Learning Difficulties (SpLDs) in mathematics leading to a potential diagnosis.

It was updated by SASC (the UK's SpLD (Specific Learning Difficulties) Assessment Standards Committee) in **March 2025** with the Maths Difficulties and Dyscalculia Working Group.

It should be read in conjunction with the document: **Format for a Diagnostic Assessment Report for Specific Learning Difficulties 2025**[1]. Specialist teacher assessors should be familiar with this additional document and consider its implications within their practice.

Additional guidance and explanatory detail is provided throughout in the form of comment boxes, allowing assessors immediate access to further information and clarification without needing to consult a separate document. However, the additional guidance and the Maths difficulties guidance full paper are available as separate document downloads from the SASC website.

This document can be found at www.sasc.org.uk Downloads.

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[1] See **Format for a Diagnostic Assessment Report for Specific Learning Difficulties 2025** (forthcoming 2025) available at SASC.org.uk in the downloads section.

SASC definition of a Specific Learning Difficulty in Mathematics (2025)

Features: A specific learning difficulty in mathematics is a set of processing difficulties that affects the acquisition of arithmetic and other areas of mathematics.

In **dyscalculia**, the most commonly observed cognitive impairment is a pronounced and persistent difficulty with numerical magnitude processing and understanding that presents in age related difficulties with naming, ordering and comparing physical quantities and numbers, estimating and place value.

Some individuals may not present with a specific cognitive impairment in numerical magnitude processing but have an equally debilitating specific learning difficulty (SpLD in mathematics) due to other processing difficulties. Difficulties in language, executive function (verbal and visuo-spatial working memory, inhibitory control) and visual-spatial processing may also contribute.

Impact: Mathematics is a very varied discipline. Difficulties with learning mathematics may present in specific areas (for example, basic calculation) or across of the mathematics studied by the individual in relation to age, standard teaching and instruction, and level of other attainments. Across education systems and age groups, difficulties in arithmetic fluency and flexibility and mathematical problem solving are key markers of a SpLD in mathematics. Persistent difficulties in mathematics can have a significant impact on life, learning and work. This may also have a detrimental impact upon an individual's resilience to apply mathematical skills effectively.

Presentation: The presentation and developmental trajectory of a specific learning difficulty (SpLD) in mathematics depends on the interactions of multiple genetic and environmental influences. It will persist through life but may change in manifestation and severity at different stages.

A SpLD in mathematics frequently co-occurs with one or more of the following: attention deficit hyperactivity disorder (ADHD), dyslexia, developmental language disorder (DLD) and developmental coordination disorder (DCD).

Maths anxiety commonly co-occurs with a SpLD in mathematics but is not an indicator in itself.

Considering Maths Anxiety as part of a diagnostic assessment of mathematics

- Should **not** attempt to identify maths anxiety as a formal diagnosis
- Need to establish whether, how or not maths anxiety is present
- Can difficulties be wholly or partially attributed to maths anxiety and/or a specific difficulty in mathematics?
- Informs recommendations
- Could difficulties in maths arise from environmental factors that may not previously have been explored?

Prior to assessment

Gathering evidence of potential maths anxiety/areas of resilience:

- to plan appropriate support and delivery of the assessment process.
- Could use **rating scales** and other **screening materials**
- May be necessary to adapt a checklist for the purpose of an assessment
- Information should be triangulated, not taken as the sole evidence
- How does completing structured intervews/questionaires regarding anxiety influence the outcomes of the assessment?

Considerations during the assessment

- Remaining conscious of the impact of the assessment on the individual - ensure process is as comfortable as possible.
- Inform the individual of the process (purpose, time, structure, etc.)
- Monitor anxiety levels during the assessment - build in breaks as appropriate.
- Give the individual the opportunity to have a say/choice in the proceedings – e.g., a choice of opening activity. Will this affect standardisation?
- Certain test constructs may trigger anxiety (e.g. timed tests) can cause memory blanks.
- In cases of extreme anxiety, put the needs of the individual first

Gathering evidence of resilience and anxiety

- Positive examples of resilience as well as well as areas causing anxiety.
- Qualitative assessment during the assessment – observation of perseverance, body-language, self-talk/self-monitoring, strategies used to focus or calm self.
- Sensitive questioning can be used to add further evidence. A debrief can be particularly helpful.
- Which tasks did they appear to enjoy/dislike or refuse to engage with?
- Were there differences in terms of task construct (e.g. multiple choice, timed tests) or topics (fractions, algebra)?

Reporting anxiety/resilience in assessment report

- Did observations triangulate with the background information?
- Were there specific topics or presentations of tasks that appeared to generate anxiety (state anxiety)? Was the anxiety more generalised (trait anxiety)?
- What signs of anxiety were observed? (e.g. avoidance, memory blanks, voicing of negative thoughts, self-deprecation). When? What?
- The impact should be reported in the diagnostic conclusion. However, as stated above, the assessor should **not** identify/diagnose Maths Anxiety as a category in its own right.

Recommendations/Onward referral

Recommendations should follow the general principles as outlined in the Report Format document (see SASC.org.uk downloads section):

- Informed by background information and observations in the assessment
- Targeted/appropriate to the individual's profile
- Be specific to the areas and types of tasks raising concern
- Interventions should be evidenced based and realistic within the setting
- Within the professional boundaries of the assessor

- In extreme cases, it may be appropriate to refer on for psychiatric support.

Summary

- Maths anxiety and resilience are now part of the definition so should be considered during a diagnostic assessment of maths
- Information should be gathered prior to the assessment to inform the process
- Observations are essential to monitor how to conduct the assessment as well as to inform the diagnostic decision
- Consider resilience as well as anxiety when reporting/making recommendations
- Should **not** diagnose maths anxiety in itself
- Further guidance due in the summer

Thank you!

Any questions?