

Maths Participation Pressure Test

A practical tool for leaders, curriculum teams, Maths Specialists and governors

Purpose

This pressure test helps providers examine whether organisational conditions enable learners and apprentices to participate confidently in Maths, apply their learning and continue when they experience difficulty. It looks beyond individual confidence to the curriculum, assessment, language, relationships and decisions that can reduce - or reinforce - fear and avoidance.

It is designed to challenge false reassurance. Attendance, completion or a qualification result alone cannot show whether people felt able to ask questions, make mistakes, take appropriate risks or use Maths in unfamiliar contexts.

The governing test

Can the organisation demonstrate that its culture, curriculum and decisions make participation in Maths safer, more purposeful and more likely to support continued engagement and positive progression?

How to use the pressure test

Use the suggested area questions as a facilitated and triangulated discussion involving leadership, curriculum, quality, support and learner perspectives. Apply the test to a defined group or area and select where assurance is weakest; do not manufacture an answer for every question in one meeting.

Revisit selected priorities at an agreed point to determine whether action changed participation, learner experience or mathematical capability.

When considering each diagnostic area, examine different points in the learner journey separately; strength at one stage may conceal barriers at another.

For each area, test five things

- What evidence do we have, and what does it actually demonstrate?
- Whose perspective is represented or missing?
- What remains uncertain, inconsistent or overly dependent on individual effort?
- What alternative explanation or evidence might challenge the emerging judgement?
- What proportionate action, ownership, success evidence and review point follow?

Confidence scale

Secure: Evidence is triangulated, includes learner experience and shows consistent positive impact.

Developing: Relevant evidence exists, but consistency, reach or impact is not yet secure.

Unclear: Activity is visible, but the learner experience or effect cannot be demonstrated.

Priority: Evidence indicates a barrier, inequity or risk requiring owned and time-bound action.

Response and action rules

- Do not infer confidence from compliance, attendance or silence.
- Do not treat Maths Anxiety as a fixed learner deficit or assume that disclosure is required before practice changes.
- Separate evidence from interpretation, and record what remains uncertain.
- Test patterns across learner groups, programmes, sites, delivery models and points in the learner journey.
- Prioritise changes to routine organisational practice before relying on individual resilience or specialist rescue.
- Identify an owner, success evidence and a review point for each priority action.

Diagnostic area 1: Language, expectations and learner identity

- What messages do leaders, teachers, trainers, assessors, employers and support teams communicate about who can succeed in Maths?
- Where is language such as 'I am not a Maths person', 'this is the easy route' or 'you will never use this' heard, tolerated or reinforced?
- Do explanations distinguish difficulty, knowledge gaps and unfamiliar application from lack of ability?
- How are prior experiences of failure, shame or exclusion recognised without lowering expectations?
- Can learners describe themselves as becoming more mathematically capable?

Diagnostic area 2: Starting points and assessment experience

- How do starting-point processes explore what learners can understand and apply, rather than relying only on a score or prior grade?
- Do assessment practices identify barriers without recreating public failure, time pressure or avoidable threat?
- Can learners explain the purpose of assessment and how the outcome shapes teaching and support?
- Where performance varies across contexts, how is this explored rather than labelled as low effort?

Diagnostic area 3: Curriculum, relevance and application

- Is Maths taught as an essential part of vocational, personal and working life rather than as a detached qualification requirement?
- Can learners connect mathematical knowledge to authentic decisions, problems and workplace activity?
- Does teaching deliberately develop transfer and application, including for learners who previously achieved a GCSE grade?
- Are representations, examples and explanations varied without reducing the intellectual demand of the task?
- Do curriculum sequencing and practice provide enough time for confidence and fluency to develop?
- Where participation in Maths is no longer mandatory, how does the organisation protect access to essential skill development?

Diagnostic area 4: Psychological safety, challenge and participation

- Can learners ask for clarification, expose uncertainty and make mistakes without embarrassment or loss of status?
- How do teachers and trainers respond to incorrect answers, silence, avoidance or reliance on a more confident peer?
- Is challenge purposeful and appropriately scaffolded, or does it become pressure without support?
- Is psychological safety used to enable participation and challenge, rather than to avoid demanding learning?
- Whose voices are heard in lessons, reviews and learner feedback, and whose apparent compliance may conceal withdrawal?
- What happens after a learner experiences failure: renewed teaching and supported re-entry, or a narrowing of opportunity?

A central test

Psychological safety without purposeful challenge can limit learning. Challenge without psychological safety can prevent participation. What evidence shows that routine practice holds both together?

Diagnostic area 5: Shared organisational responsibility

- Is mathematical capability understood as a whole-organisation responsibility, with the Maths Specialist providing expertise rather than carrying sole ownership?
- Can vocational teachers, trainers, assessors, support staff and employers identify and reinforce the Maths within their own contexts?
- Are roles, referral routes and boundaries clear when a learner needs specialist teaching or additional support?
- Do workforce-development arrangements equip people to use supportive language, notice participation barriers and contextualise Maths accurately?
- Do timetabling, staffing, resourcing and performance decisions protect the status and quality of Maths provision?
- Where specialist roles or teams have been reduced, what evidence demonstrates that capability and learner entitlement have not been lost?

Diagnostic area 6: Inclusion, progression and impact

- Which learners participate, persist, achieve and apply their Maths - and who withdraws, avoids assessment or disappears from the data?
- Are differences explored across prior attainment, programme, age, sex, ethnicity, socioeconomic background, special educational needs and disabilities, and delivery model?
- Can learners access adjustments and inclusive teaching without having to repeatedly prove or disclose difficulty?
- Does learner feedback capture confidence, belonging, application and willingness to continue, not only satisfaction?
- What evidence shows that changes in practice improve participation and mathematical capability over time?
- How are insights from Maths used to strengthen inclusive practice in English and Digital Skills where appropriate?

The organisational question

If the Maths Specialist left tomorrow, would inclusive mathematical practice remain visible across curriculum, support, quality and leadership - or would it leave with them?

Board-level synthesis

- What is the strongest evidence that organisational practice protects participation in Maths?
- Where are we relying on policy compliance, qualification outcomes or isolated examples rather than learner experience and impact?
- Which groups or parts of provision experience the greatest participation barriers, and how do we know?
- What has become optional in practice because it is no longer mandatory in policy?
- Which conditions are within our control, and what will we change first?
- Who owns the response, what evidence will indicate improvement, and when will the board or governing body review it?

Responsible use and escalation

This is an organisational improvement tool, not a clinical instrument, learner screening test or substitute for professional assessment. Do not use it to label an individual as having Maths Anxiety, determine support eligibility or generate an inspection grade.

Where discussion identifies significant distress, safeguarding concerns or suspected unmet needs, follow established support, safeguarding and referral arrangements while continuing to address the learning environment.

Closing challenge

When fear of failure becomes a participation barrier, does the organisation ask what is wrong with the learner - or what its own culture, curriculum and decisions are making harder?

From insight to improvement

Select no more than four priorities. Record existing evidence, missing perspectives, remaining uncertainty and the action most likely to improve participation. At review, test what changed in implementation, learner experience and impact.

This pressure test accompanies the thought-leadership article: When Fear of Failure Becomes a Participation Barrier: Rethinking Maths Anxiety in FE and Skills.

The principles and questions within this pressure test can also be applied to English and Digital Skills. Each essential skill should be considered separately; strength in one does not provide assurance about another, and learner experience may differ across Maths, English and Digital Skills.

Evidence, action and review record

Priority findings 1-2

Use this record only for the most important questions selected through the pressure test. Record evidence that already exists through normal practice; do not create paperwork purely to satisfy the tool. Keep evidence, interpretation, uncertainty and action distinct.

Priority 1

Priority question or area	
Evidence reviewed and sources	
What does the evidence demonstrate?	
Missing or differing perspectives	
Uncertainty, assumptions or alternative explanations	
Action, owner and completion date	
Success evidence and review date	

Priority 2

Priority question or area	
Evidence reviewed and sources	
What does the evidence demonstrate?	
Missing or differing perspectives	
Uncertainty, assumptions or alternative explanations	
Action, owner and completion date	
Success evidence and review date	

Evidence, action and review record

Priority findings 3-4

At the review point, return to the original evidence and intended success signal. Ask what changed in implementation, learner experience or impact, and whether a further action, escalation or wider organisational response is required.

Priority 3

Priority question or area	
Evidence reviewed and sources	
What does the evidence demonstrate?	
Missing or differing perspectives	
Uncertainty, assumptions or alternative explanations	
Action, owner and completion date	
Success evidence and review date	

Priority 4

Priority question or area	
Evidence reviewed and sources	
What does the evidence demonstrate?	
Missing or differing perspectives	
Uncertainty, assumptions or alternative explanations	
Action, owner and completion date	
Success evidence and review date	