

EVALUATING APPROACHES TO IMPROVE MATHS TEACHING AND LEARNING IN SECONDARY SCHOOLS: APPROACHES TO GCSE TIER ENTRY

INFORMATION SHEET

Researchers at Sheffield Hallam University (SHU) have been funded by the Educational Endowment Foundation (EEF) to investigate the impact of pupils' tier of entry to GCSE exams on their outcomes. GCSE Mathematics has two tiers of entry - foundation and higher. Ofqual recommends that pupils predicted grade 4 or 5 at GCSE should be entered for foundation tier. The proposed research addresses whether this may lead to capping effects for some pupils and whether this optimises outcomes, particularly for pupils eligible for Free School Meals (FSM).

THE STUDY

There is a lack of recent evidence on potential capping effects, school tier entry decisions, or the extent to which Ofqual recommendations on tier entry are followed.

The study aims to address the following research questions:

- What are the relationships between GCSE maths tier of entry, prior attainment (as measured by KS2 maths attainment), and FSM status? What variation is there between schools and how does this relate to school context?
- What influences school tier of entry decisions? What proportion of schools follow Ofqual recommendations?
- How do schools and teachers identify a GCSE predicted grade in mathematics?

To address these questions, from June 2025 to February 2026 we will initially undertake:

- a multilevel regression analysis of existing available data (Ofqual and National Pupil Database via the Administrative Data Research UK);
- a mixed-methods study of school practices using six group interviews conducted in a workshop format and **survey** of school mathematics subject leaders

Depending on outcomes, there may be follow on research to assess the impact of school choices on GCSE entries in summer 2027.

WHAT ARE THE EXPECTATIONS AND DO I HAVE TO TAKE PART?

The following people are eligible to take part:

- Secondary mathematics subject leaders such as Heads of Department or KS4 Maths leads
- Multi-Academy Trust mathematics subject leaders
- Others with knowledge of schools' Maths GCSE predicted grade and tier of entry practices.

Participation is entirely voluntary, opting to not take part will not have any adverse effects on you or, if applicable your school or trust. However, it is hoped that our research will be of interest and that your participation can help further shape understanding and determine the viability of the study progressing.

You can take part in two ways.

In July and September 2025, there will be the opportunity to take part in one of six **works** participants taking part in each workshop. Participants will be invited to take part through emails to schools and multi-academy trusts, through social media, and networks of mathematics teachers.

Participants would comment and provide feedback on a general model of factors that influence schools' decisions about GCSE Maths predicted grades and tier of GCSE entry. These workshops will be open to school and Multi-Academy Trust leaders and potentially others with knowledge of how schools decided predicted grades in mathematics and make tier entry decisions. If you are interested in taking part in these workshops please do so using [this workshop link](#). If more people express an interest than there are workshop spaces for participants will be selected by role and region.

During autumn 2025, a secondary mathematics subject leader or school leaders with responsibilities for examinations will be invited to **complete a survey** (this should take no more than 30 minutes to complete). A representative of all secondary schools in England will be invited to participate in the survey with an aim of 400 participants completing the survey. If you are interested in finding out more about the survey please contact the project manager (details below).

Withdrawing from the study

Participants will be able to withdraw data at the end of the workshop they participate in, without giving a reason by contacting the project lead at SHU (detailed below)

Survey participants can withdraw data without giving a reason by contacting the project lead at SHU up to 7 days after you have completed the survey (contact details below).

HOW WILL MY DATA BE USED?

Workshop/group interviews: Data will be collected by an experienced researcher(s) from SHU. With permission, these will be recorded online and potentially using an audio recorder to create a local copy. They may be transcribed, either using a professional transcriber or online transcription with verification by the researcher. Workshop/group interview transcripts will be shared between the SHU team.

Survey: Data will be collected through Qualtrics, an online survey platform, and stored on password protected SHU computers.

Data from the surveys and workshops will be analysed by SHU researchers leading to a report to be submitted to EEF, potentially published by EEF and may inform academic and other publications.

The workshop/group interview data and the survey data will be used to decide whether further research to determine the impact of school GCSE choices should be undertaken and funded by EEF. Any future research would be open to those contributing to the workshops/group interviews and the survey as well as others. However, there will be no obligation to take part in future research.

PARTICIPATION INCENTIVES

Participants in the workshops/group interviews will be eligible to receive a voucher with a value of £30

Participants in the survey will be eligible to enter a draw for a voucher with a value of £20. A total of 20 vouchers will be available.

WILL I BE IDENTIFIABLE?

All project reports, and any academic research publications and presentations, will anonymise organisations and individuals through our best efforts so that no individual participant will be identified or is identifiable.

PERSONAL DATA

All digital data will be stored in secure, password-protected computers in Sheffield Hal
paper-based data will be stored in locked cupboards within secure offices. Any transfer of data will use secure
portals.

SHU undertakes research as part of its function for the community under its legal status Sheffield Hallam University
undertakes research as part of its function for the community under its legal status. Data protection allows us to use
personal data for our work with appropriate safeguards in place under the legal basis of **public tasks that are in the
public interest** (GDPR clause 6 (1) f). A full statement of your rights can be found at
<https://www.shu.ac.uk/about-this-website/privacy-policy/privacy-notices/privacy-notice-for-research>.

All University work of this nature is reviewed to ensure that participants are treated appropriately and their rights
respected. This work was approved by the University Ethics Committee. Further information can be found here:
<https://www.shu.ac.uk/research/ethics-integrity-and-practice>.

If you have any general queries about the information provided, please contact the Project Manager or the Principal
Investigator (details below).

For any concerns:

<p>You should contact the Data Protection Officer if:</p> <ul style="list-style-type: none">• you have a query about how your data is used by the University• you would like to report a data security breach (e.g. if you think your personal data has been lost or disclosed inappropriately)• you would like to complain about how the University has used your personal data DPO@shu.ac.uk	<p>You should contact the Head of Research Ethics:</p> <p>Dr Mayur Ranchordas ethicssupport@shu.ac.uk</p> <p>If you have concerns with how the work research was undertaken or how you were treated</p>
Postal address: Sheffield Hallam University, Howard Street, Sheffield S1 1WB Telephone: 0114 225 5555	

If you have any further questions about the evaluation, please contact:

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Thank you for taking the time to read this