Bristol and Cardiff PHIRST

Mindset Teams in the Scottish education system

Proposal v0.3 26.07.2021

Overview of the intervention to be evaluated and contextual information

The focus of this study will be evaluating the impact of the 'Mindset Teams' intervention delivered among primary schools in Scotland.

More than a quarter of Scotland's children are officially recognised as living in poverty (1), a figure which is projected to rise to more than a third by 2030 in the absence of significant policy change (2). A key aspect in alleviating poverty, is to improve student engagement with learning. This can improve health and well-being and potentially address inequalities in educational outcomes (3).

Winning Scotland's flagship programme 'Mindset Teams' is an intervention which aims to support the development of a growth mindset culture in Scottish schools in order to improve learning resilience for health and education outcomes. Adopting a professional learning approach, the intervention enables teaching practitioners and senior leaders in schools to form a *mindset team* in order to develop, implement and support mindset learning throughout the curriculum.

Mindset theory suggests that individuals have different beliefs about the underlying nature of ability (4). *Fixed* mindsets represent individuals who believe that attributes are stable. *Growth* mindsets reflect individuals who believe attributes are malleable. In this instance, individuals with a fixed mindset will be distraught by setbacks whereas growth mindset individuals will interpret struggles as learning opportunities (5). According to this theory, students with higher growth mindsets have more adaptive psychological traits and behaviours, which in turn lead to greater academic achievement (6). The concept of growth mindset has been adopted by both academics and educationalists as an approach to improving learning outcomes for individuals. Supporting practices and developing a school culture that understands and recognises such processes provides an opportunity for addressing student learning, well-being and ultimately attainment and inequalities.

Commencing in the year 2018, the Mindset Teams programme is currently delivered across 25 local authorities and 300+ schools in Scotland, with at least one new cohort (comprising 10 schools) due to start from May 2021 onwards. Schools undertaking the programme are typically located in the local authorities with the highest concentrations of deprivation and are subsequently in receipt of Scottish Attainment Challenge fund (SAC).

Winning Scotland has developed three connected professional learning programmes to support the integration of growth mindset principles within Scottish education, applicable from early years to tertiary education. **The focus of this evaluation will be on programme delivery within the primary school setting**. This decision has been informed by extensive discussions with stakeholders and reflects the availability of outcome data, the feasibility to explore the programme's theory of change and the importance of considering early intervention and school transition for improved outcomes.

This proposal has been developed collaboratively with Winning Scotland and through consultation with a wide range of stakeholders (see section below). As a result, both the logic model (Appendix 1) and research questions have been co-produced. Short-term intended outcomes concern both child (i.e. improved outcomes of the Scottish Attainment Challenge (7) and improved resilience for learning) and teacher-related (i.e. improved beliefs, attitudes and awareness of growth mindset and mental-wellbeing) outcomes. Longer-term outcomes concern child mental-wellbeing, a narrowing of the poverty related attainment gap and sustained growth mindset culture among schools and communities. Throughout each stage of proposal development, we have also considered the Health Inequalities Assessment Toolkit (Appendix 2).

Development and co-production of the proposal

Following our PHIRST team's ethos of embedded practice and public involvement in all levels of project work, the work of the Task and Finish group to develop this proposal has been conducted in collaboration with key stakeholders throughout the process. As a result, the research questions, potential evaluation methods and intervention logic model have been co-produced between members of the Task and Finish group and a wider stakeholder group. At the start of the Task and Finish process, stakeholder mapping was conducted to identify the relevant partners to be involved. This identified members of Winning Scotland beyond the key contact (GS, Impact and Delivery Manager) including the Mindset in Education project lead and support tutor, as well as representatives of Scottish Government, local authorities and schools with experience of the programme. Beyond the regular meetings of the Task and Finish group which included Winning Scotland representation throughout, the main process of co-production took place via an online stakeholder consultation event held via Microsoft Teams owing to COVID-19 restrictions. This event provided an opportunity to explore the theory of change of Mindset in Education with the identified stakeholders to understand the various experiences and expertise related to the programme, as well as exploration of the most important research questions that the evaluation should focus on. The event was attended by 16 stakeholders as well as the 7 members of the Task and Finish group. Stakeholder representation at the event included Winning Scotland project leads, Mindset in Education course tutors and academic leads, local authority leads for Mindset in Education, education support officers and advisors, and Scottish Government representation from the Scottish Attainment Challenge policy unit. Processes used during the event to encourage open dialogue across all attendees included anonymous polling and small breakout discussion groups, as well as wider whole group discussion. Sub-group discussions explored key elements that should be tested within the programme logic model. Following discussion and sub-group feedback, a proposed logic model drafted by the Task and Finish Group was presented for wider comments. This process confirmed key elements of the logic model and theory of change and also identified a number of additional areas which need to be explored as part of the evaluation (i.e. the involvement of the family, connections between the home and school environment and programme impacts on teacher health and wellbeing). An anonymous ranking exercise of proposed research questions provided a jumping-off point for highlighting areas of evaluation focus which were of most interest and importance to the group. During this process, it transpired that impact-related questions were deemed of most importance and measures of teacher health-related outcomes were desirable for inclusion.

Review of existing evidence:

While mindset theory is not age specific, some suggest that mindsets are especially important during the turbulent period of adolescence as young people face new challenges. A number of earlier studies have shown that growth mindset can lead to school achievement among adolescent (8, 9) and college students (10), with growth mindset viewed as a precursor of resilience, psychological well-being and school engagement (11). That said, findings from two meta-analyses (12) showed no significant relationship between the implementation of growth mindset interventions and academic achievement. The majority of included studies within these concerned adolescent and adult populations.

Socioeconomic background is a strong predictor of a young person's academic achievement (13) with higher rates of deprivation potentially limiting a students' academic achievement through multiple mechanisms. There is some evidence of the impact of growth mindset on academic outcomes among students with a low socioeconomic status. Despite concluding no overall impacts, the meta-analyses by Sisk and colleagues (12) found impacts among certain sub-groups, with those students deemed 'academically at risk' or with a low socioeconomic status potentially benefiting from mindset

interventions. This finding is in line with mindset theory, which advocates that a having a growth mindset is especially important for students deemed at-risk or facing situational changes such as school transitions. A US-based study (14) however noted that mindset explained an estimated 2% to 7% of the relationship between socioeconomic status and achievement, with authors concluding a need to capture wider root causes of existing educational inequality. Beyond attainment, broader literature concerning growth mindset suggests wider positive impacts among older children which include; coping better with transition and improved mental wellbeing (15).

While growth mindset is increasing in popularity among UK primary schools, the number of studies within this area remains small. A recent systematic review (16) focusing on the use of growth mindset in primary educational settings uncovered ten studies, three of which were based in the UK. Studies were largely exploratory in nature, focusing on the effectiveness of growth mindset *elements* at the whole school or subject level on motivational and academic outcomes. Several studies focused on how growth mindset was used as opposed to evaluating outcomes. Interventions typically used growth mindset in one of four ways; providing a script for teachers; encouraging evidence based practice in the teaching profession; providing a framework for learning; supporting pupils who are socio-economically disadvantaged. Nine of the ten studies involved teachers implementing the intervention, providing an opportunity for harnessing knowledge of the local context of their school. Overall, there was some evidence of a more noticeable effect for growth mindset strategies for pupils who were from a lower socio-economic background. Yet, the review highlighted the extent or lack thereof of growth mindset, with growth mindset largely being an element of an intervention as opposed to the overarching intervention, therefore making it difficult to deduce the impacts of the growth mindset element and/or to replicate across schools. As such, the authors conclude that there is a need for more rigorous outcome evaluation, drawing on the academic rigour of the university alongside insider knowledge of the real-world context.

Key evaluation aim, objectives, and research questions

The aims of the evaluation are to:

a) determine the impact of the Mindset Teams intervention on pre-specified outcomes relating to teachers and young people;
b) explore the implementation, barriers and facilitators and diffusion of the Mindset Teams programme within and across schools.

The study will examine whether the programme logic model (Appendix 1) that we have co-produced with Winning Scotland and key stakeholders is valid, including the change mechanisms through which the proposed outputs and outcomes are achieved (or not).

The research questions are:

1. What are the drivers and barriers for sustained mindset growth practice within and around schools?
2. What are the drivers and barriers to cultural transformation within schools?
3. How do local and national stakeholders support a mindset culture within and across schools?
4. How does the programme support diffusion of learning within and across schools?
5. What are the impacts of Mindset in Education on teacher beliefs, attitudes and awareness of growth mindset practice and health and wellbeing?
6. To what extent can routine data be used to examine the impacts of Mindset Teams on young people's education and health outcomes (e.g. attainment, attendance and mental health and wellbeing)?

Where feasible, RQ6 will include sub-group analyses of data to explore differential impact across socio-economic status, ethnicity, age, gender and any accumulative impacts of attending a Mindset Teams school. As detailed in Appendix 2 we will have a focus on both health and education inequalities when answering each of the above research questions.

Proposed outcomes of the Mindset Teams intervention are denoted below. Outcomes in bold indicate those which shall be examined as part of the current study. Primary and secondary outcomes are also indicated.

Short term-outcomes:

- **Improved outcomes of Scottish Attainment Challenge Big 5 (Primary outcome)**
- Pupils develop resilience for learning
- **Teachers beliefs and attitudes that children can and should have a growth mindset Primary outcome)**
- **Improved teacher awareness of growth mindset practice**
- **Improved teaching practices**
- **Improved teacher wellbeing**

Medium term-outcomes:

- **Growth mindset embedded within school improvement plans (Secondary outcome)**
- Improved pupil mental wellbeing
- Improved pupil resilience
- Increased pupil confidence to pursue and fulfil their aspirations
- **Improved pupil attainment (reading, numeracy and writing)**

Long term-outcomes:

- Narrowing of the poverty related attainment gap
- Sustained growth mindset culture within education and school community

Methods

This study involves quantitative analyses using a quasi-experimental design and mixed methods process evaluation to explore context and implementation of the programme. We will undertake secondary data analyses of routinely collected data across all schools participating in the programme and comparator non-intervention schools. We will also undertake secondary data analyses of teacher survey data collected between 2018 and 2021 and of Mindset Teams teachers participating in the programme during 2021-2022. The process evaluation will involve qualitative data collection among two cohorts of schools, those who are established Mindset Teams schools and those participating in the 2021 programme. Sampling of schools is skewed towards established schools given the focus of research questions 1-4 on implementation. It will also involve a quantitative survey of parents/carers of children attending Mindset Teams schools. Figure 1 below gives an overview of methods.

Using an exploratory concurrent mixed method approach, we will fully address the interpretation-level of research questions by connecting the qualitative data and quantitative data using a joint display (17). In this instance, both data types will be visually brought together with points of contention and areas of convergence displayed in the final analysis phase.

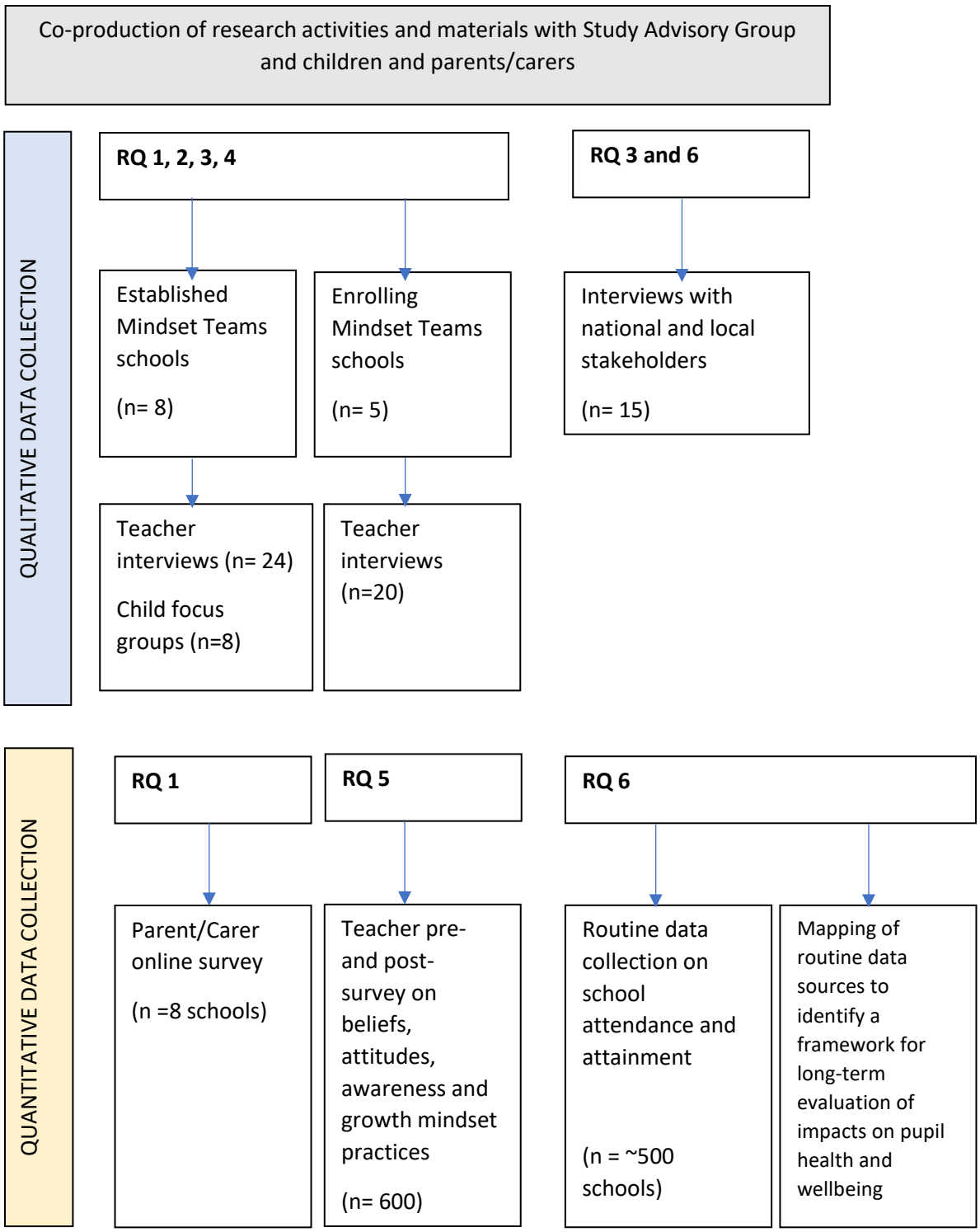

Figure 1: Overview of methods and research questions addressed

Co-production activity

We will continue to work with Winning Scotland and wider stakeholders to embed PPI throughout our study. Co-production activities with students and teachers who attend a Mindset Team school will ensure that the research tools are relevant, inclusive, accessible and therefore more likely to elicit data that informs the research questions.

In the Mindset Team school we will conduct two hour-long sessions, delivered remotely by the research team with support from a member of school staff on site. During each session, up to 5 students will be invited to participate in the co-production of the following: recruitment strategies and materials and topic guides for qualitative work with students.

Similarly, we will consult with the school leadership team to develop a survey methodology that limits the administrative burden on school staff. This will include identifying data collection methods (online platform and set-up for student focus groups, distributing parent survey); length of focus groups (time for completion) and timetable for completion in schools that limits disruption to the school curriculum.

We will also work with the Mindset Team school to recruit a small group of parents/carers to co-produce recruitment strategies, materials, and wording of items in the online survey. We envisage that this may involve a short online discussion event or telephone meetings with the research team with draft materials sent in advance. We will work with the Mindset Team school to ensure an inclusive participation strategy.

The Mindset Team school will receive £100 and all students and parents/carers involved in co-production activities will be offered a £10 voucher as a thank you for their contribution.

Inclusion/Exclusion criteria

Inclusion criteria:

- All schools participating in the Mindset Teams intervention

Exclusion criteria:

- Schools not involved in the Mindset Teams Intervention
- Schools who have dropped out of the intervention delivery

Qualitative data collection

Stakeholder interviews (N=15)

Up to 15 stakeholders will be purposively recruited to participate in an in-depth one-to-one qualitative interview. Participants will include; programme providers, local authority leads, secondary school representatives and policy makers. Sampling will ensure representation across local authorities and reflect a range of engagement with the programme (i.e. length of involvement). Recruitment will be undertaken in consultation with Winning Scotland and participant information sheets will be provided for all invite stakeholders. Participation will be voluntary. Interviews will take place online or over the telephone and will last up to one hour.

A topic guide will be developed that explores the following areas:

- role and length of involvement with the programme;
- uptake and perceived reasons for uptake and non-uptake amongst schools and local authorities;
- perceived impact on children including Scottish Attainment Challenge Big 5, resilience, mental wellbeing, confidence levels and aspirations;
- perceived impact on teachers including beliefs, attitudes, behaviours and health outcomes;
- barriers and facilitators to effective implementation of Mindset Teams;
- sustainability of the programme;
- existing or anticipated data sources which could examine long-term impacts on pupil mental health and wellbeing

Mindset Team schools (N=8)

Eight schools will be purposively sampled and invited to participate in the study. Sampling criteria will include: year of study enrolment, school size, local authority and percentage of children eligible for free school meals. The following data collection will take place in each school:

i) Staff interviews: We will recruit three members of staff to participate in an in-depth one-to-one qualitative interview. Participants will include; the Head Teacher, a Mindset Leader and a Mindset Champion. Recruitment will be undertaken in consultation with the senior leadership team and participant information sheets will be provided for school staff. Participation will be voluntary. Interviews will take place online or over the telephone and will last up to one hour. Cost for teacher cover will be reimbursed where this is needed (at a cost of £100 per interview).

A topic guide will be developed that explores the following areas:

- role and length of involvement in the programme;
- demographics of school students and perceptions of programme engagement;
- perceived impact on children's education and health outcomes including Scottish Attainment Challenge Big 5, resilience, mental wellbeing, confidence levels and aspirations;
- perceived impact on teachers including beliefs, attitudes, behaviours and health and wellbeing outcomes;
- barriers and facilitators to effective implementation of Mindset Teams;
- sharing of practice across the school, local authority and national-level;
- sustainability of the programme;
- unintended consequences.

ii) *Child focus groups:* We will recruit up to 6-8 children in each school to participate in a focus group. Each school will be asked to send information sheets and consent forms to parents/carers of all children taking part in a Mindset Teams Year group (i.e. P5-P7 / Year 4-6) for them to provide opt-in consent for the focus groups if they wish for their child to participate. From those children whose parents/carers have provided opt-in consent we will ask the classroom teacher to invite 6-8 children to participate in the focus group (similar numbers of boys and girls). The teacher will be provided with a script to explain the nature of the focus group and the voluntary nature of participating, for any child who declines to participate, the teacher will invite an additional pupil (whose parent/carer has provided consent). Focus groups will take place online using videoconferencing technology available in the school at a time agreed with school staff that minimises disruption to learning.

A topic guide will be developed that explores the following areas:

- understanding of the programme;
- influence of others on growth mindset; peers, teachers, family members;
- perceptions of impact on Scottish Attainment Challenge Big 5, resilience, mental wellbeing, confidence levels and aspirations;
- other impacts of the programme;
- unintended consequences of the programme

2021 enrolled Mindset Team schools (N=5)

Staff interviews: In each school, in-depth one-to-one interviews will be conducted with four members of staff. Participants will include the Head Teacher, the teacher undertaking the Mindset Champion role and the two teachers undertaking the Mindset Leader roles. Participant information sheets will be provided and participation will be voluntary. Interviews will take place online or over the telephone and will last up to one hour. Cost for teacher cover will be reimbursed where this is needed (at a cost of £100 per interview).

A topic guide will be developed that explores the following areas:

- understanding of the programme and perceived importance;
- motivations for participating in the programme
- barriers and facilitators to effective implementation of Mindset Teams;
- perceived barriers and facilitators to future sustained implementation of Mindset Teams;
- perceived potential impacts of the programme on teachers and children;
- role of the wider community in supporting growth mindset

For all aspects of qualitative data collection, a semi-structured schedule shall be used as a broad topic guide to enable the researcher to probe areas of interest and to enable the interviewees to discuss areas not anticipated by the researcher. Written and audio consent shall be attained for participation and use of anonymised quotations and verbal consent for audio recording.

Quantitative data collection

In addition to the qualitative data, the first research question will also be explored using an online survey with parents/carers to enable the wider influences on growth mindset to be examined. Research questions five and six, concerning the impact of Mindset Teams on teacher- and student-related outcomes and will be addressed using quantitative data collection methods. These will include a teacher survey and analysis of routine data collected by the Scottish Government.

Primary data collection

Parents/Carers

We will undertake a self-report online survey of parents/carers within Mindset Team schools. Sampling of schools will be purposive to ensure representation across the following criteria; school year group involved in the programme, year of programme delivery, percentage of free school meal eligibility and percentage of ethnic minority pupils. Each school will be asked to send out a study participant information sheet along with the survey link to all parents/carers. Parent/Carer consent will be a part of the survey and all questions will have a 'I do not want to answer' option. Parents/carers completing the survey will be automatically entered into a £100 voucher prize draw should they wish to provide a contact email address for notifying the randomly selected winner. Email addresses provided for entry into the draw for vouchers will not be matched to survey responses

The survey will assess parent/carer awareness and understanding of growth mindset and of the programme, the perceived role of the family in supporting child growth mindset and perceived programme impacts.

Teachers

Teachers are routinely sent an online 22-item survey before and after (at 6-months) completing the Mindset Teams training course. Questions included within the survey concern: teacher awareness, beliefs and understanding of growth mindset, and implementation of Mindset within school improvement plans and teaching activities. The majority of response items rank from strongly disagree to strongly agree. We will use all pre- and post-survey data (approximately 600 responses) to examine results across local authorities and over time. All data provided to the research team will be in an anonymised format.

For teachers undertaking the Mindset Teams training course from 2021 onwards, additional questions will be added to the pre- and post-survey to support our evaluation. Questions will include measures of wellbeing, professional quality of life, job satisfaction and workplace culture.

Routine data

Attendance and academic performance

We will use routine data collated on all primary schools by the Scottish Government to examine impacts on pupil attendance rates and academic performance. Data are available on Tableau Public a free online visualisation public data platform. The data are presented for stages P1 (reception), P4 (Year 3) and P7 (Year 6). Informed by programme delivery data collated by Winning Scotland, we will determine whether analyses are required at the school level (i.e. P1, P4 and P7 combined) and/or for a particular Year group.

Data will concern the years 2016/17-2018/19 and 2021/22 (data were **not** collected in 2020/21 due to COVID-19). Specifically, data will be sourced on all Mindset Teams schools and non-intervention comparator schools in the year prior to programme delivery and for the available follow-on years. These data will help us to examine impacts of the programme on children's attendance and academic performance whilst considering wider contextual information.

The following data will be examined:

Academic performance: Percentage of pupils achieving the Curriculum for Excellence (CfE) across four reported domains; reading, writing, listening and talking, and numeracy. These data are based on teacher professional judgements and are provided to the Scottish Government by local authorities.

Attendance: Attendance and absence data is collected from publicly funded schools every 2 years.

Free school meal data: The percentage of pupils in each school/area who are registered for free school meals. In Scotland, all children in P1-P3 are provided with free school meals regardless of their personal circumstances. The data available concern children in P4 and P7 only.

School-level deprivation: The Scottish Index of Multiple Deprivation (SIMD) is provided for each school to signify the areas where children in the school live. SIMD 1 represents the most deprived areas and SIMD 5 the least deprived areas.

Pupil ethnicity: The ethnic background of pupils within each school is recorded into one of four categories; White UK, White other, Ethnic Minority and Not known.

Gender: The percentage of pupils recorded as male or female in the pupil census, information is based on the sex of the pupil as recorded on a child's birth certificate.

The research team will explore whether the anonymised data described above can be directly accessed via the Scottish Government or whether a Creator licence is required to access data through Tableau Public.

Mental health and wellbeing

In addition to the data gathered during our qualitative interviews, we will map out routine data sources which are collected locally, regionally or nationally to support the long-term evaluation of programme impacts on mental health and wellbeing.

Analysis

All qualitative data will be transcribed verbatim and analysed using NVivo 12 software. Data will be analysed using the inductive thematic approach of Braun and Clarke (18) beginning with an initial review of the transcripts. For each set of data (i.e. school cohorts and stakeholder type) we will produce a conceptual framework that includes the initial key themes and sub-themes. As part of this process, the research team will read and open code a small number of transcripts for each set of data to discuss and amend the frameworks so that they fit the data. In addition, the frameworks will need to fit the study objectives and research questions (19). Once the initial codes and frameworks have been agreed, the research team will adopt a systematic approach to data management, coding the transcripts into the framework using NVivo software. Once all the transcripts have been coded, the team will have a detailed and accessible overview of the data populating each theme and sub-theme from every respondent. Responses within each stakeholder framework will be compared both within- and across stakeholder groups. Records of the coding process and analysis will be kept throughout the study, and debriefing sessions will be held between the main researcher and senior researcher (KM). We will ensure transparency of the study process by maintaining clear documentation to support reflexivity.

The quantitative data will be predominantly descriptive in nature. For all variables we will calculate the mean and standard deviation or proportions for responses. In order to examine programme impacts on school attendance and academic performance across the four domains, linear mixed-effects models with random-intercepts for school will be used. This will allow for a difference-in-differences analysis to be conducted as a standard method for quasi-experiments. Models will be inverse-propensity weighting with weighting based on baseline covariates SIMD, geographical location and ethnicity. Models will later be adjusted for all covariates, including those for matching, to provide 'doubly-robust estimators'.

Integration of qualitative and quantitative data will happen at the design-level, using iterative data collection and analysis to drive changes in the data collection procedures and at the interpretation-level, integrating through joint displays (17).

Research Team

Dr Kelly Morgan will take responsibility for the delivery of the project as a whole, integration of data sources and analyses, and reporting. PI responsibilities will be jointly shared with Professor Simon Murphy. Professor Frank de Vocht, project Co-I, will take lead responsibility for quantitative analyses.

The Study Advisory Group will involve three members of the Task and Finish Group:

Grant Small, Impact and Delivery Manager for Winning Scotland will provide insights and expertise of the programme throughout.

Professor Russ Jago will provide strategic advice and support throughout, based on expertise in school-based interventions.

Dr Jemma Hawkins will provide strategic advice and support throughout, based on expertise in process evaluation.

Data management plan

Cardiff University will be the Data Controller for this study.

All processes for data collection, storage and processing will be compliant with the Data Protection Act (2018) and the General Data Protection Regulation (2016).

Interviews and focus groups will be audio recorded using Dictaphones (including in the case of interviews by videocall – we will not use the inbuilt recording function; we will instead capture audio via Dictaphone across the researcher's computer speakers). All interview data collected on personal laptops (as per home working arrangements) will be completed via the University VPN where possible, or if not, will be uploaded to the University network and immediately deleted from personal computers upon completion of data collection. Audio recordings will be sent via secure file transfer to an approved transcription company who will transcribe the recording verbatim according to our anonymisation instructions and a confidentiality agreement. On receipt of the transcriptions the research team will check the anonymisation and store these on the University network.

The survey software and system which we will use to collate parent/carer survey data is certified to the highest possible standard to ensure data is kept safe and secure. The software is well established, trusted and is ISO/IEC 27001 certified with data encrypted throughout the survey cycle. Once downloaded from the survey platform, all electronic data will be stored on the University network on password-protected University computers, accessible only by authorised individuals.

All school-level routine data used for secondary analyses are publicly available online and will therefore be accessed in an anonymised format with each school assigned an ID.

All data will only be stored on the University network and accessed via password-protected computers and laptops, and will be accessible only to authorised individuals in the research team. No personal data will be stored on personal computers/networks.

A data sharing agreement will be set up between Winning Scotland and Cardiff University to enable the transfer of routine data (i.e. teacher survey data). All data will be transferred over secure, encrypted connections. In respect to the transfer of this data between Bristol Cardiff PHIRST members, as Data Controller, Cardiff University shall assume responsibility for determining the purpose and

means of transfer and the Data Processor (i.e. Professor Frank de Vocht) shall assume responsibility for receiving and processing such data in a compliant manner on behalf of the Data Controller.

In accordance with Research Councils UK guidance, all consent forms will be stored securely in electronic form or as locked paper copies for a period of 10 years. After 10 years, electronic documentation, and data will be destroyed via deletion from devices / servers; hard copies of study documentation will be destroyed by shredding and confidential waste disposal.

Ethics and Governance

The study will be registered with the research governance team at Cardiff University. The study has been granted ethical approval from the School Research Ethics Committee of the School of Social Sciences (SREC/4280).

The research team will ensure that issues of confidentiality, consent, anonymity, safeguarding and data management are appropriately addressed across all aspects of the research process including recruitment, data collection, analysis and dissemination.

We anticipate the main areas of scrutiny will include the recruitment of young people, and the potentially sensitive nature of some of the topics to be explored during data collection (e.g. mindset, resilience, confidence and mental wellbeing). In addition to scrutiny from the ethics committee, we will involve local stakeholders as co-producers of our research tools to help minimise any negative consequences for participants.

As the research involves data collections with young people below the age of 16 all core members of the team will have an enhanced DBS check.

Timeline and Milestones

	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
Proposal submission and sign off from NIHR	X	X																							
Develop research tools		X	X																						
Ethics submission			X																						
Devise project Advisory Group			X																						
Ethical approval				X																					
Recruit stakeholders and schools					X	X	X																		
Qualitative interviews with local and national stakeholders						X	X	X																	
Collate teacher pre-programme data (May and Sept cohort)							X																		
Routine data preparations							X	X	X																
Qualitative data analysis								X	X	X	X	X	X	X	X	X	X	X	X	X					
Run parent/carer survey										X	X	X													
Qualitative interviews with Mindset Team schools											X	X	X	X											
Conduct child focus groups											X	X	X	X											
Quantitative data analyses											X	X	X	X	X	X									
Collate teacher post-programme data (May and Sept cohort)													X												
Qualitative - interviews with 2021 Mindset Teams														X	X	X									
Mapping of long-term data sources														X	X	X	X	X							
Write-up																		X	X	X	X	X	X	X	
Final report																									X

Outputs

Outputs will include:

1. A final report for Winning Scotland and NIHR

2. A final report for schools, parents/carers and young people.

3. A stakeholder webinar for representatives from participating schools to hear findings and discuss implications.

4. Presentation of findings to local, regional and national stakeholders

5. Presentation of findings at a Public Health conference

6. *Academic papers:*
   - Impact of Mindset Teams on young people's mental health and wellbeing
   - Process evaluation of implementing Mindset Teams in primary schools as a strategy for addressing Scottish Attainment Challenge outcomes and mental health and wellbeing

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