MINDSET TEAMS IN THE SCOTTISH EDUCATION SYSTEM

A mixed methods evaluation of the delivery and impact of the Mindset Teams programme in the Scottish education system

Since 2018, Winning Scotland, a Scottish charity, have delivered the Mindset Teams programme within schools across Scotland. Many participating schools are located in the most deprived areas. This briefing summarises findings from a mixed methods evaluation of the delivery and impact of this programme in primary schools.



KEY FINDINGS

- Findings indicate that the programme is highly valued by teachers, pupils, and wider stakeholders, providing an opportunity to support children's education and wellbeing needs.
- Teacher's attitudes and knowledge of growth mindset were shown to improve after completing the Mindset Teams training course, with many wider benefits highlighted in qualitative data.
- Examining Scottish Government school-level data, there was some indication that in Mindset Teams schools a higher percentage of pupils achieving the expected Curriculum for Excellence level in writing, compared to those without the programme, one year later.
- Findings emphasised the importance placed on the programmes role in supporting children's wellbeing, with accounts of improved children's wellbeing and social skills, enhanced engagement with learning and support for future aspirations.
- Embedding growth mindset within school-level policies and ensuring resource allocation were found to be key facilitators across programme uptake, delivery and sustainability in schools.
- Commonly identified barriers across programme uptake, delivery and sustainability included the constraints experienced due to Covid-19 and the competing demands placed on teachers and schools.





BACKGROUND

Schools provide an opportune setting for the delivery of programs to reduce inequalities in education and improve pupil health and wellbeing (1). In Scotland, more than a quarter of children are living in poverty, a figure that is set to rise substantially without major policy change (2,3).

It has been suggested that people have different beliefs about the underlying nature of ability (4). People with a fixed mindset believe that our natural levels of ability, intelligence or talent are stable and will determine levels of future success. Others have a growth mindset and believe that our abilities are adaptable and can be learned and developed, with level of success determined by factors such as effort, application and skill development. Mindsets are thought to be particularly important during childhood and adolescence. Research typically focusing on secondary schools suggests that growth mindset is beneficial to children's resilience, wellbeing, and school engagement (5,6), and is particularly noticeable in pupils from lower socio-economic backgrounds (7,8).

Since 2018, Winning Scotland, a charity that acts as a catalyst for change, has delivered a Mindset Teams programme within primary and secondary schools, typically located in the most deprived areas of Scotland. The programme aims to promote the development of a growth mindset culture in Scottish schools. It is intended to complement the aims of the Scottish Attainment Challenge and delivery of the Curriculum for Excellence (9) through improved learning resilience for health and education outcomes. The programme involves training a Mindset Team within each school, so they may develop, deliver and support growth mindset learning throughout the curriculum. Typically, the Mindset Team is comprised of a member of senior management (Mindset Leader) and at least two teaching practitioners (Mindset Champions). The programme is designed to improve staff knowledge and confidence over a 12-month period, with 6-months dedicated to the online training and a further 6-months to develop and implement a growth mindset project within the school.

Focusing on primary schools, this research aimed to understand the impact of the Mindset Teams programme on a) children's education and health and b) teacher's beliefs, attitudes and awareness of growth mindset and their health and wellbeing. It also aimed to explore how the programme is being delivered.



METHODS

This was a mixed methods study. Qualitative data collection included interviews with 15 wider stakeholders (e.g. secondary school teachers, local authority education officers, Winning Scotland Trustees and tutors). Interviews were also undertaken with 18 teachers and 4 focus groups took place with 23 children, across 6 schools involved with the Mindset Teams programme. Quantitative data included data from teacher surveys, with 570 teachers completing surveys before and 301 completing surveys after undertaking the training. 13 parents also responded to a parent survey. Finally, routine school-level data on attendance and Curriculum for Excellence outcomes was obtained for 408 schools across Scotland.

Public Involvement sessions were undertaken with parents, pupils and teachers at a nominated school that had previously undertaken the Mindset Teams programme. These sessions informed the development of study materials, recruitment activities and dissemination plans.



FINDINGS



What are the programme impacts on teachers?

Teacher survey data gathered before and after the Mindset Teams training indicated an overall change in how teacher's perceived pupils learning abilities. There was a shift towards a higher appreciation that all pupils can improve regardless of their baseline skills and motivation, and that this ability does not remain fixed. This appreciation was also identified in the parent survey.



'I think for me getting that excitement again about my own learning has made me enjoy my job again more which has definitely impacted on my mental health.'

Mindset champion

Across interviews, teachers highlighted several wider impacts experienced because of the programme and wider stakeholders relayed a series of perceived impacts.

- Enhanced teaching practices.
- Improved personal qualities.
- Improved mental health.
- Contributing towards a positive school culture.
- Greater enthusiasm for learning.
- Strengthening relationships with parents.
- Application of a growth mindset to personal life.

'Our teaching resources and tasks that we're giving are to a much higher standard because we are thinking about what challenges are going to promote the higher order thinking skills, what challenges are going to promote communication So, it's helped with our pedagogy and the fact that we looked at different methods. We're teaching different methods and we're exploring different ways with the children and celebrating that it's okay that you're doing it differently to somebody else. I think definitely on our teaching styles and our communication with the children, there's a definite positive impact on that as well.'

Mindset Champion







What are the programme impacts on children?

Teachers, pupils, and wider stakeholders relayed several benefits for participating children among discussions. While impacts on academic achievement were discussed, teachers largely emphasised that the programme had created benefits far beyond academic achievement, acknowledging the need to adopt a holistic lens to evaluation.

The adoption of a growth mindset was linked to the following impacts:

- Improved mental health and wellbeing: greater sense of happiness, confidence, improved communication skills and greater emotional resilience in the classroom and wider school setting.
- Greater engagement with learning: improved knowledge for growth mindset, enhanced communication skills, greater ownership and improved resilience for learning, improved pupilteacher relationships and improved academic outcomes.
- Enhanced social skills: improved cohesiveness of children in the classroom, improved behaviours, improved friendships and conflict resolution and greater use of social skills within classroom and playground.
- Aspiration and attainment: supporting children's beliefs and future aspirations to enable them to achieve.

'Lessons that we've been doing it's helped with our brain and our mental health ...

Yes, because we were learning about our body and [Teacher named] was focused on our brain and how the neurons are always firing but if we had a fixed mindset the neurons are tired and they can't fire that well and if you had a fixed mindset, oh my gosh, a growth mindset all the neurons are going to be firing and building bridges, so we can walk across them.'

Child

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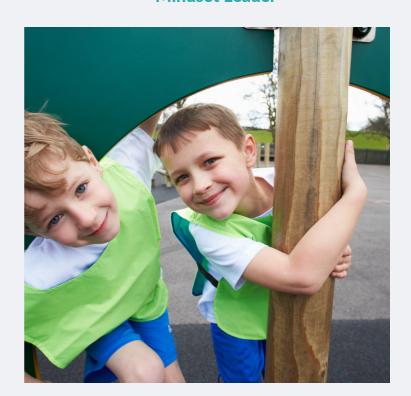
'I'm not evangelical about it but I do think it does, I think it makes a big difference to the children, not just their attainment - I think it does help with their attainment - but it's more about their mental health and them being able to get through the day.'

Head Teacher

Analysis of school-level attainment data collected by the Scottish Government showed improvements in the Curriculum for Excellence outcome of Writing among schools taking part in the Mindset Teams programme. 3% more children in Mindset Teams schools achieved the expected Curriculum for Excellence level in writing, compared to children in schools without the programme. No differences were found for reading, listening and talking, and numeracy achievements.

'So yeah, I think they're happier, I think they're more relaxed, I think they're more open and willing to learn new things, and that actually learning new things is good fun. So, that's the effect it has on their wellbeing.'

Mindset Leader





Why do schools take up the programme?

Key motivations for schools taking up the programme were identified as:

- Demands of the school demographics: schools within areas of high deprivation described the programme as an opportunity to improve children's resilience, tackle poor behaviour and support future aspirations of pupils.
- Efforts to develop the school workforce: head teachers expressed an interest in growth mindset and emphasised the role of the programme in supporting staff leadership and professional development opportunities and empowering staff to adopt growth mindsets.
- Alignment with school values: the programme was seen an avenue for formalising training in growth mindset and a vehicle for supporting the delivery of school improvement plans.
- Impacts of COVID-19: many teachers noted how COVID-19 reinforced the need for programme uptake, strengthening efforts to support pupils' wellbeing and morale.

'It was something that we've always looked at is growth mindset we've kind of scratched the surface here but it was the fact it was a proper programme, and it would improve our wellbeing as well as teachers for CPD and just a lot more structure for us so I think that's what we found quite interesting.'

While two schools highlighted that no barriers to uptake were encountered, others highlighted barriers concerning the training programme (time intensive, unclear structure) and wider context (Covid-19 and an already demanding workload).

Mindset Champion

The fragmented political landscape, a reluctance for innovation among the educational system, wider societal pressures and competing initiatives were identified as further challenges by wider stakeholders.

'But I just think that comes back down to your values ultimately as a school. I think sometimes ... the value or the worth of a school or the effectiveness of a school can sometimes be judged in quite a one-dimensional way. How good's your attainment? Well, we have a set of values in here that says, well actually, it's about much more than that.'

Head Teacher

Factors which supported schools to take up the programme included the ability to embed growth mindset in the school system, the clear alignment of the programme with school values and taking proactive steps to support teachers (e.g., protecting time, transparency of time involvement and dedicated training days).

Wider stakeholders also identified other supporting factors for programme uptake, which included the recognised historic importance of growth mindset in Scotland, having a key advocate in the local authority, school recommendations and sharing of practice and the reputation of Winning Scotland and the Mindset Teams programme.

'I think it's just there's so many competing priorities in education. They're all the time. I mean I spend half my life going through my inbox and just not even bothering – it sounds terrible – but not even bothering replying to things because everything sounds wonderful if you read it in isolation. Who wouldn't want to do work on refugees? Who wouldn't want to work on LGBTI? Who wouldn't want to work on climate change? Who wouldn't want – and you know but actually we can't do it all, you know, and I think that's probably the reason it can be easily pushed off the centre

stage.'
Wider stakeholder







What factors influence teacher experience of the Mindset Teams training course?

Teachers reported several factors which helped them to undertake the Mindset Teams training course, these included:

- · Team working
- Flexible approach
- · Protected training time
- Clear training course structure
- Support from programme provider

Teachers also encountered challenges to undertaking the Mindset Teams training course, these involved the:

- High time demands
- · Isolated learning for Mindset Leaders
- Staff absence
- Difficulty navigating the training course website

'I think the timing. I think obviously it's a lot of work, but you know that going into it, obviously it's over the year. I would say the timing and having to juggle that with my workload but that's just something that comes with the job. So that's what I would say is the most challenging thing about it.'

Mindset Champion

'I think yeah, the training I really liked the way the training we could access it at any time, that was a big support for me because I could do it around anything else, around the children around work, I could pop in and out of it and it was always there afterwards if I wanted to revisit any of the training, it's online and so you can move back and forwards to help with understanding.'

Mindset Champion







How is the programme delivered in schools?

Teachers reported several factors which helped them to deliver the programme, these included:

- Inclusion of growth mindset on school improvement plans.
- Alignment with school ethos: growth mindset underpinned the school's values and teachers recognising the value of evidence-based practice in schools.
- **Staff attitudes**: strong leadership, highly motivated, team working approach and adoption of growth mindsets following the training.
- Allocation of extra resources: protected staff time and additional staff cover.
- **Supportive training course**: flexible learning approach and regular contacts throughout the training.

'I think... the success of our project was because of that team approach and because there was somebody in management for us, that certainly seemed to be the best way. I feel like teachers are so busy with our day-to-day things you know, and actually having somebody within the management team to oversee the projects, to drive the projects, to arrange the meetings, just to keep everything on track and on target and be there to support both of them, I think that was a really useful part of my role.'

Mindset Leader





While several schools reported no barriers to programme delivery, other delivery barriers were highlighted, these included:

- **Covid-19**: competing priorities, hampered team working, high staff absence and illness.
- Practical application of learning: tailoring to child's ability and classroom setting, limited resources available.
- High staff workload: competing demands on teacher's time for delivery and impacts of staff changing roles.

'So for me, the most tricky bit was thinking about how can I talk to three and four year olds about their minds. [laugh] So it was really hard. That took a long time to think about how to bring it to their level in a way that they could understand. But yes, I would say that my only comment about the course itself would be that the information you were given was great, but it would have been really useful to have more information about practical applications and how that would look in a classroom.'

Mindset Champion





How is the programme sustained within and around schools?

'I would like to think that it will just become part and parcel of what we do at school. That is, that in school we have a growth mindset, we know how to be resilient, we know how to help ourselves, and we have our learning tools. So I think for me, it's not just a programme, it's just the way it's going to be.'

Mindset Leader

Wider stakeholders and teachers discussed the factors underpinning the sustainability of the programme both within and around schools.

Key facilitators identified for sustainability

Systems level

- Historic presence: ability to build on an existing growth mindset concept which is already familiar to teachers and educational services in Scotland.
- **Programme endorsement**: sharing programme evaluation findings and school case-studies.
- Funding availability: access to national funding streams.

School level

- Embedded within policies and strategies: inclusion of growth mindset within the School Improvement Plan and having senior leadership involvement.
- Allocation of resources: enabling protected time, teaching resources, and continued professional training for teachers.
- Timing: introducing growth mindset at the start of the school year to enable immediate start and continuation.

'I think, going forward that Winning Scotland will persuade a whole authority to take this on. There are one or two authorities that are. I think clearly, although the programme is available for an individual school, it would be far better for a whole authority to embrace it.'

Wider stakeholder

Key barriers identified for sustainability

Systems level:

- Changing landscape of **funding in Scotland**.
- Overshadowed by **wider societal pressures**: Covid-19 and cost-of-living-crisis.
- Difficulty attributing impact: uncertainty how to distinguish impacts from other programmes and initiatives being implemented.

School level:

- **School culture**: misalignment of school reward systems to support growth mindset.
- **Staff attitudes**: low readiness, lack of awareness and a lack of buy-in from wider staff and senior leadership team.
- Competing demands within schools: competing priorities within the environment and School Improvement Plan, alongside teacher workloads and the need to allocate training time for wider staff members.
- **Mindset fatigue**: pupils and teachers may become negative towards the repetition.
- **Structural level**: staff turnover and staffing structures (e.g. job shares) and school holiday periods.

'I do think that a lot of people already think that they are embedding a growth mindset, but I don't think it's actually being done, not properly. But it is a buzzword that's thrown around, and I think a lot of people will struggle to think about that and bring it back to why it's important.'

Mindset Champion





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Conclusions

The Mindset Teams programme continues to be implemented throughout Scotland, with a total of 572 schools having undertaken the programme by February 2023. This study demonstrates how valued the programme is by those currently involved at the school, local and national level. Schools reported a range of positive impacts relating to both health and wellbeing and engagement with learning. Attainment data suggest a small population impact on pupils writing achievements. Schools demonstrated a commitment to programme implementation despite challenges posed by the Covid-19 pandemic, with motivations driven by immediate impacts and as a mechanism to combat adverse impacts of Covid-19. Programme uptake, delivery and sustainability are most likely to be effective when there are key facilitators and joined up efforts across the school, local and national system. Winning Scotland have more recently developed a suite of programmes to complement Mindset Teams and mitigate against some of the challenges identified within this report.

Recomendations

Our recommendations to Winning Scotland include:

- Future communications should emphasise the programme impacts beyond academic attainment and signal how these wider impacts align with schools and policy priorities.
- Efforts should be made to support schools to cascade learning efficiently among other staff members to facilitate a whole school approach to growth mindset.
- Collaboration with key agents within the local and national system should seek to identify funding and resources to support sustainable delivery models.
- Considerations should be given to the programmes current training approach to ensure training commitments complement wider staff activities and there is variation to maintain longer-term interest of staff and pupils.
- Collection of good quality prospective data on health, wellbeing and attainment to support future evaluations and monitoring.





References

1.Dolean D, Melby-Lervåg M, Tincas I, Damsa C, Lervåg A. Achievement gap: Socioeconomic status affects reading development beyond language and cognition in children facing poverty. Learning and Instruction. 2019;63:101218.

2.Government. S. Poverty and income inequality statistics. Accessed at: https://www.gov.scot/collections/poverty-and-income-inequality-statistics/. 2021

3. Scottish Government. Tackling child poverty delivery plan: forecasting child poverty in Scotland. Available at:

https://www.gov.scot/publications/tackling-child-poverty-delivery-plan-forecasting-child-poverty-scotland/pages/2/ 2018.

4.Dweck, C. S. (2017). The journey to children's mindsets—and beyond. Child Development Perspectives, 11(2), 139-144.

5.Blackwell, L. S., Trzesniewski, K. H., & Dweck, C. S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. Child development, 78(1), 246-263.

6.Yeager, D. S., Trzesniewski, K. H., & Dweck, C. S. (2013). An implicit theories of personality intervention reduces adolescent aggression in response to victimization and exclusion. Child development, 84(3), 970-988.

7.Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. Proceedings of the National Academy of Sciences, 113(31), 8664-8668.

8.Sisk, V. F., Burgoyne, A. P., Sun, J., Butler, J. L., & Macnamara, B. N. (2018). To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses. Psychological science, 29(4), 549-571. 9.Scottish Attainment Challenge, 2022/2023 to 2025/2026. Fairer Scotland Duty Summary. (2022)



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There is more information about PHIRST on the website www.phirst.nihr.ac.uk

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