

# **RedSTART: Change the Game Evaluation Year 2**

## *Summary Report*

*Prepared by the Policy Institute at King's College London*

Susannah Hume  
Jack Lawton-Summers  
Megan Liskey  
Johnny Runge

November 2024

# Introduction

This report details the second year of our research into the impact of RedSTART's Change the Game programme – a financial education intervention for primary-aged children. The evaluation has been conducted by researchers at the Policy Institute at King's College London. This document is the Summary Report. Alongside this we have published a full report.<sup>1</sup> We have also published reporting covering the first year of the evaluation.<sup>2,3</sup>

## Delivery

Almost 1800 pupils (Cohort 1) – in Year 4 (in England) and Primary 5 (in Scotland) – across 45 schools participated in the second year of the impact evaluation of Change the Game. The evaluation was a randomised controlled trial (RCT), with pupils in the treatment schools receiving Change the Game activities throughout the school year, whilst the control cohort did not.

Almost 2400 pupils (Cohort 3) in Reception (Primary 1 in Scotland) were also onboarded this year to participate in the research study going forward. Baseline measures were taken for Cohort 3 this year, but no impact analysis was conducted.

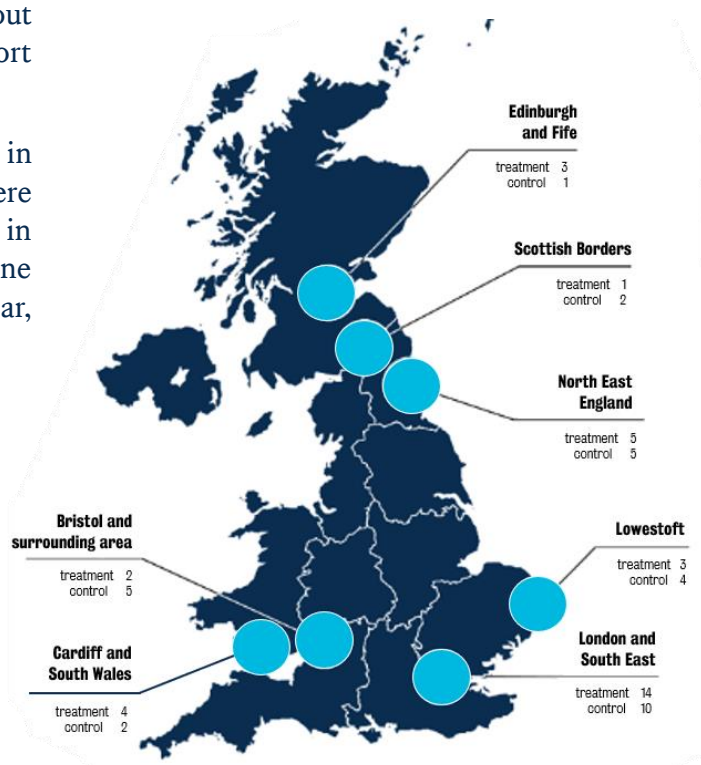
## Findings

The impact evaluation found that Change the Game had a statistically significant medium-sized positive effect on children's financial knowledge, after two years of implementation.

It also found that the programme had a statistically significant positive impact on three out of five other outcomes. Pupils improved their financial ability, financial mindset, and financial connection as a result of the intervention. No significant effect was found on the fourth (financial behaviour) or fifth outcome (teacher-assessed maths attainment). These findings are consistent with the outcomes measured after one year of the intervention.

Through interviewing and surveying teachers and senior leaders in schools, we found widespread buy-in to the programme. School staff found the delivery model and resources to be high quality, efficient, and relatively burden-free, indicating that the model could be sustainable and scaled.

Figure 1: Distribution of participating schools (all cohorts)







# Policy context

## Importance of financial education

The second year of the study has taken place against the backdrop of a new government entering Downing Street. The incoming government has committed itself to reviewing the curriculum to ensure that all pupils leave education “ready for life and ready for work”.<sup>4</sup> This review may look to address the inconsistent application of financial education across the country, as stakeholders across the political spectrum recognise the importance it can have on other outcomes.

There is evidence that financial literacy is linked to financial outcomes of adults,<sup>5</sup> and that financial education received as a child affects financial capabilities later in life.<sup>6</sup>

Steps have been taken in recognition of this. Financial education has now been on the national curriculum for secondary schools in England for over a decade, and a range of financial and charitable organisations are delivering interventions across the UK.

But research shows that financial education is not equally accessed, with the worst-off less likely to access it than their wealthier peers.<sup>7</sup> Provision is varied as schools are under little statutory obligation to provide meaningful financial education across all age groups. Consequently, the young people that are growing up to face the greatest financial challenges are often the least well prepared to deal with them.

There is also a gap in the evidence base: there have not been large-scale, long-term studies into the impact of different financial education models and their various impacts on primary-aged children.<sup>8</sup>

## Growing momentum among policymakers

In this context, policymakers across the spectrum are increasingly seeking to address these gaps. In 2021, the All-Party Parliamentary Group on Financial Education for Young People recommended the expansion of provision and evidence generation in the sector, including longitudinal studies into the impact of financial education.<sup>9</sup>

At the end of 2023, the Education Select Committee launched an inquiry to strengthen financial education’s presence in the national curriculum.

Further work by the Select Committee has sought to get financial education on the agenda for the new government.

## Our aim is to provide an evidence base for policymakers

The study presented here, and the Change the Game intervention itself, aims to address these gaps and provide actionable evidence to policymakers as they look to address the discrepancies in financial literacy in the UK.

# Change the Game

## Focus on disadvantaged pupils

The charity RedSTART works with schools in areas with high scores on the index of multiple deprivation. Part of their mission is to provide access to financial education for children and young people who are more likely to come across financial hardship later in life and give disadvantaged pupils a “head start on their financial futures.”<sup>10</sup>

## Game-based activities in primary school

Change the Game is a novel intervention for primary-aged children, with activities delivered every year until the end of primary school. It was delivered in over 70 schools across the country in 2023/24.

The delivery model is based around partnerships between RedSTART, schools and volunteers, including from the financial sector. Together, they deliver game-based activities that introduce financial concepts and encourage pupils to engage meaningfully with them. These take place either in school or offsite at corporate partners’ offices.

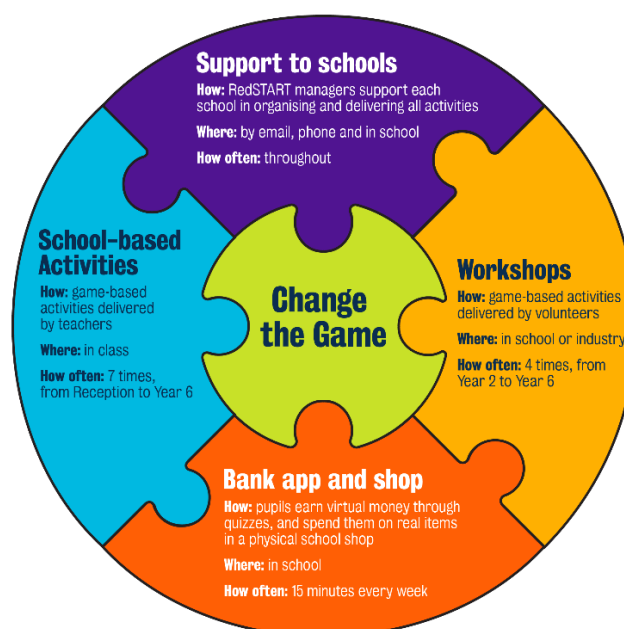
A bank app has also been rolled out to a number of participating schools, in which pupils earn virtual money through maths games, manage it through current and savings accounts, and can then spend it on real items in a physical school shop.

## Intended outcomes

Change the Game focuses on improving pupils’:

- **financial ability** (their understanding of different financial concepts)
- **financial mindset** (their attitudes in relation to financial behaviours and the future more generally)
- **financial behaviour** (their actions relating to money and financial concepts like saving)
- **financial connections** (their access to financial education resources)
- **maths attainment and confidence** (their teacher-assessed maths grades, and later their Key Stage 1 and 2 maths results, and self-reported confidence)

Figure 2: The Change the Game model



# Methods

Almost 1800 Year 4 pupils across 45 schools completed the survey for the second year of the impact evaluation. Almost 2400 reception pupils, across 57 schools were onboarded this year – impact analysis for this cohort will follow in later years.

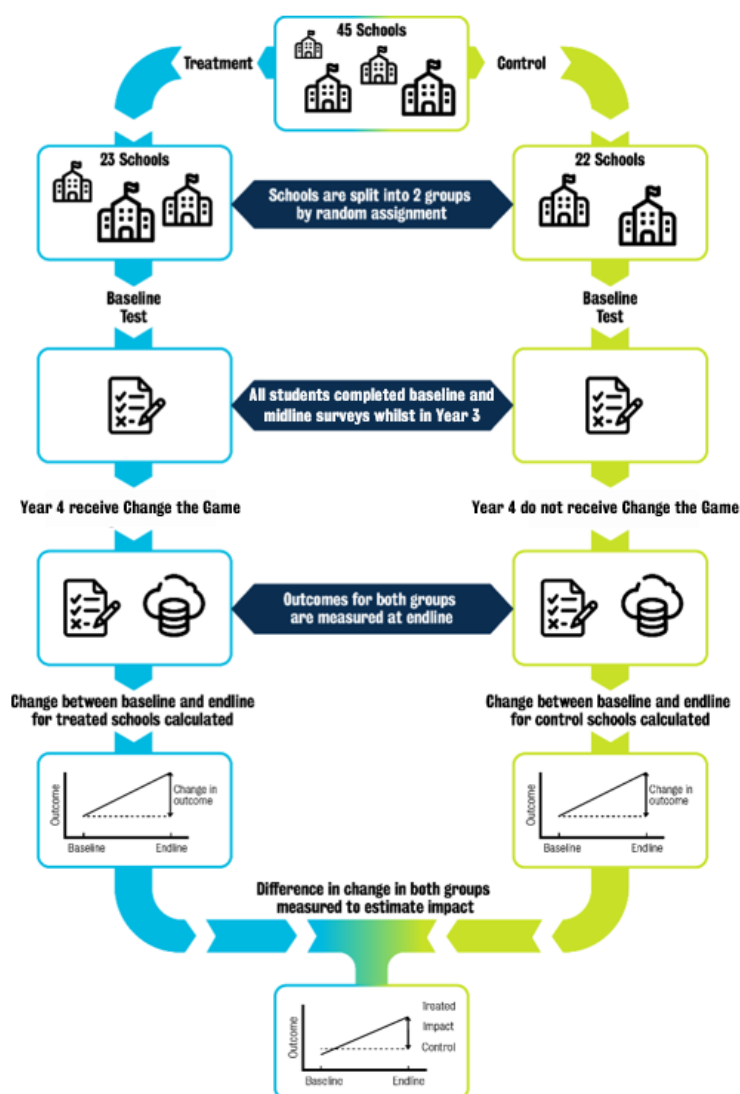
The impact evaluation, a randomised controlled trial (RCT), has investigated the effect of Change the Game on pupils' financial knowledge. The participating schools were randomly allocated into two groups – treatment and control – with the treatment schools receiving the intervention for Years 2 through 6 and the control schools only receiving the intervention in Year 6.

Year 4 pupils have received two years of Change the Game. We measured their financial knowledge and skills at the beginning of Year 3, before the programme started, and at the end of the year, after one year of provision.

This year we re-surveyed Year 4 pupils' financial knowledge using a survey that was developed for the purpose of this research. It developed and expanded on the survey used the previous year, reflecting the increased comprehension of Year 4s. Pupils completed the survey at the end of the 2023/24 school year, after two years of provision. The average changes in these scores in relation to the baseline measures were compared between the treatment and control group to give an estimate of the impact caused by Change the Game.

We also interviewed and surveyed school staff to understand how the programme was delivered, what factors have helped or hindered its implementation, and to answer broader questions around programme sustainability and scalability.

**Figure 3: RCT process - Cohort 1 schools**



# Findings

## Year 4 pupil outcomes


The impact evaluation found that Change the Game had a statistically significant positive effect on pupils' financial knowledge. After two years of exposure to the treatment (which is intended to be a seven-year intervention), the financial knowledge of pupils receiving Change the Game was 4.8% higher, all else equal. This represents a higher proportionate impact than we found in the first year of the

evaluation (3.5%); however, these numbers are difficult to compare as the latter represents the effect for both Year 2s and Year 3s using a different survey instrument.

Converting the estimated impact in Year 2 into effect sizes gives us an effect size (Cohen's d) of 0.31, a medium effect, which is larger than similar interventions; one meta-analysis of 18 randomised controlled trials in the sector found interventions had an average effect size of

Outcome	Measure	Year 2 Impact
<b>Financial knowledge</b>	19 questions related to: <ul style="list-style-type: none"> <li>Understanding of role of money in society</li> <li>Understanding of money management</li> <li>Skills to manage money well day-to-day</li> <li>Access to financial education resources</li> </ul>	+4.8% Medium effect
<b>Financial ability</b>	6 questions related to: <ul style="list-style-type: none"> <li>Understanding of money management</li> <li>Understanding of role of money in society</li> </ul>	+12.6% Medium effect
<b>Financial behaviour</b>	5 questions related to: <ul style="list-style-type: none"> <li>Skills to manage money well day-to-day</li> </ul>	No impact
<b>Financial connections</b>	3 questions related to: <ul style="list-style-type: none"> <li>Access to financial education resources</li> </ul>	+6.0% Small-to-medium effect
<b>Financial mindset</b>	7 questions related to: <ul style="list-style-type: none"> <li>Attitudes to money management</li> <li>Aspirations and goals</li> </ul>	+2.5% Small-to-medium effect
<b>Confidence in maths</b>	3 questions related to: <ul style="list-style-type: none"> <li>Confidence in addition, subtraction and division</li> </ul>	No impact
<b>Maths attainment</b>	Teacher-assessed grades standardised to reflect whether a pupil was assessed as being at or above the expected standard	No impact

*Note: 'effect size' accounts for other attributes of the outcome, such as the overall variation in scores and the average score in the control group and is, therefore, a more comparable measure of size of impact than percentage increase.*



0.15.<sup>11</sup> After two years of implementation, Change the Game has a statistically significant positive effect on three disaggregated outcomes: pupils' financial abilities, connections and mindset were all improved on average, by engaging with Change the Game. No significant impact was found on financial behaviours or maths confidence (as measured by the survey), or on end-of-year teacher-assessed maths grades.

## Reception baseline

We also conducted baseline surveys with the new cohort of Reception pupils. This process involved devising a story-based survey that researchers administered 1:1 with Reception pupils. This resulted in the team collecting high quality data from almost 2400 pupils, who will be tracked throughout their primary school education as half receive the Change the Game intervention and half do not.

Descriptive analysis of the baseline surveys has shown that the treatment and control groups are starting with very similar levels of financial knowledge.

Some key insights are:

- Half the sample (48%) were able to provide a good response when asked what money is.
- 7% knew what adverts are for.
- 13% knew what a bank is.
- Only 17% had a positive plan for what they would do if they were given £5.
- Pupils in the South East of England had the lowest starting financial

knowledge, while pupils in Scotland had the highest.

## Feedback from staff

We found that the programme has strong support amongst teachers and senior leaders. 89% of teachers surveyed reported it had been straightforward to run Change the Game, attributing this to the high-quality resources, training and ongoing support provided by RedSTART staff. The ease of delivery was crucial to school staff - they appreciated the attention given to minimising teacher workloads.

*'I knew exactly what to do, how and why. Having specific resources available to use made it particularly easy to deliver.'*

90% of teachers said they had enjoyed running the activities with their pupils. In particular, the "gamification of learning" and the volunteer-based model were championed as fostering a fun and age-appropriate learning environment.

*'They absolutely love all of the workshops and ask me frequently when we will be doing the next one.'*

Teachers often reported observing positive impacts on pupils' financial knowledge and attitudes, which they said had been retained from the previous year of the programme. Some teachers observed pupils recalling concepts and vocabulary from previous sessions, showing the programme's cumulative impact, in line with its objectives.





# Discussion

## Change the Game increases financial knowledge

Change the Game continues to have an impact on participating pupils after two years of delivery; this is extremely positive for the intervention and signals that it will continue to be impactful in its full seven-year form. Gains from the first year of the programme have been maintained and, in some cases, built on. This is notable because, this year, the programme moved to increasing the level of teacher involvement in delivery.

The size of impact we measured is on the high end for interventions in this field. Other programmes that achieve similar effect sizes are often more intensive,<sup>12</sup> meaning Change the Game appears to represent a time-efficient approach to improving children's financial literacy.

Evidence gathered in the research can provide some insight into how this has been achieved. Surveys and interviews with teachers, and classroom observations, suggest that engagement in the activities was very strong.

Several teachers commented on how the use of external volunteers and engaging physical resources had raised the profile of Change the Game amongst their pupils.

*'Children really enjoy when I tell them [RedSTART person] is coming. They really enjoy the sessions, and can recall information at a later date.'*

## Comparing the first year to this year


It is complex to compare the size of impact for the first year of the programme to the second. The two reports aren't directly comparable as the first year report included both Year 2s and Year 3s, whereas this report only includes pupils who were in Year 3 in 2022/23.

In addition, the survey was expanded this year and the response categories for a number of questions were expanded, meaning that scores in the first year are not directly comparable to scores in the second year. The intention is for the survey used in this year to be used for Year 6s as well, which means that some of the questions are more difficult and cover topics that may be beyond pupils' current learning levels.

With these caveats in mind, overall, we find that the size of the treatment impact (as measured by effect size to account for the different outcome surveys) for Cohort 1 is directionally, but not significantly, larger in this year (0.23 in 2022/23 vs 0.31 in 2023/24). This is going in the right direction; it will be important to see whether or not this improvement year-on-year is sustained and reaches statistical significance for either Cohort 2 (who will have received three years of provision when they are surveyed at the end of 2024/25) or for Cohort 1 when they reach Year 6.

We see that overall Change the Game has improved financial connections, with continuity in the effect size between the





first and second years of the programme. We also see a significant increase in the impact of the programme on financial ability. In 2022/23, there was no impact of Change the Game on this outcome for Year 3s, but this year we see a strong and significant improvement.

For financial behaviour, maths confidence and maths attainment, we have not observed any impact of Change the Game. It is possible that this impact will come later in the Change the Game curriculum (i.e. in Years 5 and 6), as pupils consolidate their knowledge and connections, and these translate into behaviours; however, it is also possible that Change the Game as it is currently delivered is not effective in impacting these outcomes.

It is also important to be conscious that in general we would expect pupils to lose knowledge over time, in the absence of sustained intervention and having their knowledge and skills consistently refreshed. We know that pupils (particularly those from disadvantaged backgrounds) experience learning loss during periods without structured learning. Without continued interventions, we would expect pupils' financial knowledge to regress.<sup>13</sup> This is important context as it suggests that ongoing interventions are necessary for learning to be maintained.

Overall, we consider the findings for the second year of the evaluation to be positive. However, continued evaluation is necessary to establish whether Change the Game achieves its goal of meaningful and sustained improvement in financial knowledge across the span of primary school.

## Why does Change the Game improve some aspects of financial capability more than others?

Whilst we have not tested this quantitatively, we can suggest reasons that explain why positive impacts have been observed for some, but not all, disaggregated outcomes.


### Positive impact on financial ability

This domain measures pupils' understanding of key concepts around finances, including what costs money, what are essentials, what adverts are for, and knowledge of interest, debt and credit cards. The improvement on this domain, therefore, represents an improvement in pupils' knowledge of these key concepts. This is a key aspect of Change the Game, and our fieldwork with teachers indicated that a lot of the conversations during the sessions focused on the role of financial institutions and money in society, and these conversations often seem to have continued beyond the sessions.

*'It gives my children a good starting idea of money, and opens their eyes to money in the wider world.'*

### Positive impact on financial connections

The financial connection of pupils was measured by asking pupils to indicate where they have learned about money and how frequently they receive financial



education. As the treatment pupils had been actively exposed to a financial education intervention that was delivered in school and had take-home elements, it is not surprising that there was improvement on this measure, and not surprising that this effect was consistent across the first and second years.

## **Positive impact on financial mindset**

The questions that measure financial mindset are focused on savings behaviours and financial management attitudes. This is a focus of the Change the Game sessions so a positive impact on this measure is an encouraging sign for RedSTART and their approach. Teachers had also observed these impacts during sessions, for instance on attitudes to savings:

*‘The children wanted to save for a bigger class treat rather than use them early for a smaller treat.’*

## **No impact on financial behaviour**

The questions in the survey that cover this outcome ask pupils to indicate how they would spend or save in different scenarios.

These questions in many ways represent the culmination of financial knowledge: translating ability, connections and mindset into action. It may be, therefore, that the impact on behaviours will take more time to manifest: a key reason why sustained intervention that builds year-on-year may be necessary.

It is also possible that these questions are more conceptually difficult for pupils as they ask pupils to imagine situations and then describe how they would act within

them. Although some of these questions were based on questions developed by the Money and Pensions Service for Key Stage 2 and 3 pupils in their Financial Capability Framework,<sup>14</sup> it may be that the ability to answer these questions meaningfully develops over the course of primary school.

It is also possible that Change the Game is less effective at changing the way pupils think about how best to behave in various financial scenarios. This assessment will be more appropriate once data collection for Cohort 1 is complete in 2025/26. However, other research does suggest it is easier to affect financial knowledge than financial behaviours.<sup>15</sup>


## **No impact on maths attainment or maths confidence**

The lack of impact on maths attainment is understandable given the low intensity of the programme compared to the amount of time spent in class on mathematics.

Very simply, it seems unlikely that a programme which entails a few sessions across the school year would outweigh the daily maths lessons that primary pupils complete. As influencing attitudes toward and attainment in mathematics is a key goal of Change the Game, it will again be important to monitor these cumulative effects going forward.

## **Sustainability and scalability**

Across the two evaluation years, we observed positive signs for programme sustainability during interviews and surveys with teachers. A key factor that limits the sustainability of interventions in school settings is often staff time and the



burden placed upon teachers by additional activities and programmes. This did not appear to be an issue for Change the Game as teaching staff reported that accessing training and delivering the sessions added little to no burden to their day-to-day work.

*‘The [RedSTART staff member] has been instrumental in supporting us in every step of the way. This has allowed me to support my staff and ensure they have everything they need to deliver the programme.’*

This was made possible by the ongoing work of the RedSTART team who made the programme easily accessible through a combination of careful planning and clear communication. As the programme expands and develops, maintaining this high level of staff buy-in has been important to its sustainability.

The engagement of teaching and leadership staff is also important when considering scalability. Because it is relatively straightforward for schools to facilitate Change the Game, there are few barriers to new schools joining the programme.

## Limitations of the evaluation

The analysis for this report was done without access to the National Pupil Database (NPD). We expect to secure access by the end of 2024. As we have secured consent from parents and guardians to use this, we will then collect further attainment and demographic data of the participants and provide an update to this report. This will include more precise and detailed analysis; for example, we can investigate whether the intervention has a

differential impact on pupils from different socioeconomic backgrounds or ethnic groups. However, it is worth noting that analysis from the first year of the study suggests that demographic controls do not provide a great deal of additional information, and that the benefits of Change the Game are broadly consistent across demographic subgroups.

Cohort 1 data collection was overseen by teachers, rather than the research team, meaning there may be some variation in the conditions under which pupils took the survey. For the final wave of data collection for each cohort (when they are in Year 6), we will send invigilators to schools to oversee data collection and ensure it is done consistently and robustly.





# Conclusion and next steps

Overall, the evidence gathered in the second year of the evaluation suggests that Change the Game is an impactful intervention that can improve children's financial literacy, and that ongoing interventions can maintain and extend learning gains made by pupils.

Our findings also support RedSTART's belief that early intervention in financial education is appropriate – primary-aged children can meaningfully engage with the relevant material and improve their understanding of varied aspects of financial literacy.

They are also able to engage with a range of novel concepts and respond to questions about financial concepts. This includes reception-aged children as young as four.

Data collected from various stakeholders also indicates that RedSTART has developed an efficient delivery model that secures buy-in from teachers and leadership staff at school.

Based on our findings, we have come to the following conclusions that are relevant to policymakers and practitioners in the financial education field.

- 1** Children up to Year 4 can engage meaningfully with financial education and can benefit from interventions that aim to improve their financial knowledge.
- 2** Consistent delivery helps to maintain learning gains, especially when interventions are not highly intense.
- 3** Organisations seeking to deliver programmes in schools should prioritise reducing burden for teaching and leadership staff as far as possible. Because of the wide range of competing priorities on staff and pupil time, buy-in among school staff is crucial to the successful delivery of school-based interventions.
- 4** Accessible resources and varied activities, such as those used by RedSTART, are linked to more time-efficient interventions as they can engage pupils, from ages 4-8, successfully; evidence gathered here suggests that lower intensity programmes can yield results that are comparable to higher intensity programmes.

## Next steps

The evaluation is continuing into the 2024/25 academic year. This year, Cohort 2 (who were in Year 2 at the start of the evaluation) will complete midline surveys in the Spring/Summer terms of 2025 as they reach the end of Year 4. These will be analysed to measure the impact of Change the Game on their outcomes. A report

detailing these findings will be published in late 2025.

In 2025/26 an endline survey will be completed with Cohort 1 as they reach the end of primary school.

Simultaneously, we will complete midline surveys with Cohort 3 as they reach the end of Year 2. The 2026 report will provide impact analysis for both of these cohorts.



# References

1. Hume, Summers, Liskey, & Runge (2024, forthcoming) RedSTART: Change the Game Evaluation Year 2: Full Report. Available at: <https://www.kcl.ac.uk/research/evaluation-of-the-financial-education-programme-change-the-game>
2. Hume, Summers, McGannon, Liskey, Soon & Runge (2024a) RedSTART: Change the Game Evaluation Year 1: Full Report. Available at: <https://www.kcl.ac.uk/research/evaluation-of-the-financial-education-programme-change-the-game>
3. Hume, Summers, McGannon, Liskey, Soon & Runge (2024b) RedSTART: Change the Game Evaluation Year 1: Summary Report. Available at: <https://www.kcl.ac.uk/research/evaluation-of-the-financial-education-programme-change-the-game>
4. HMG (2024) Curriculum and Assessment Review. Available at: <https://www.gov.uk/government/groups/curriculum-and-assessment-review>
5. Lusardi & Messy (2023), The importance of financial literacy and its impact on financial wellbeing. *Journal of Financial Literacy and Wellbeing*, 1(1)
6. LeBaron et al. (2020), Parental Financial Education During Childhood and Financial Behaviors of emerging adults, *Journal of Financial Counseling and Planning*
7. MaPS (2023), UK Children and Young People's Financial Wellbeing Survey: Financial Foundations, Available at: <https://maps.org.uk/en/publications/research/2023/uk-children-and-young-peoples-financial-wellbeing-survey-financial-foundations#Key-findings>
8. APPG on Financial Education for Young People (2021), Inquiry on Primary-School aged Financial Education, Available at: <https://www.young-enterprise.org.uk/wp-content/uploads/2021/07/Inquiry-on-primary-school-aged-financial-education-Report.pdf>
9. *Ibid.*
10. RedSTART Educate (2023), Who we Help. Available at: <https://redstarteducate.org/what-we-do/>
11. Kaiser, T., & Menkhoff, L. (2020), Financial education in schools: A meta-analysis of experimental studies. *Economics of Education Review*, 78



12. *Ibid.*

13. See, for example, Paechter et al. (2015), The Effects of Nine-Week Summer Vacation: Losses in Mathematics and Gains in Reading. *Eurasia Journal of Mathematics, Science and Technology Education*, 11(6); or Shinwell & Defeyter (2017), Investigation of Summer Learning Loss in the UK – Implications for Holiday Club Provision. *Frontiers in Public Health*, 5(270)
14. Money and Pensions Service (2018), Children, Young People, and Parents Outcomes Framework. Available at:  
<https://www.fincap.org.uk/en/articles/children-young-people-and-parents-outcomes-framework>
15. Fernandes, Lynch, & Netemeyer (2014), Financial Literacy, Financial Education, and Downstream Financial Behaviors, *Management Science*, 60(8).





# The Policy Institute

The Policy Institute at King's College London works to solve society's challenges with evidence and expertise.

We combine the rigour of academia with the agility of a consultancy and the connectedness of a think tank.

Our research draws on many disciplines and methods, making use of the skills, expertise and resources of not only the institute, but the university and its wider network too.

## Connect with us

[@policyatkins](https://twitter.com/policyatkins)

[kcl.ac.uk/policy-institute](https://kcl.ac.uk/policy-institute)