

Magic breakfast evaluation report

Introduction and background

School nutrition, in particular school breakfasts, have been a focus of the Department for Education (DfE) in England for some time. Policy initiatives are based on evidence that healthy breakfast consumption is linked to improved outcomes for children. Much of this evidence comes from the US, where the provision of breakfast in disadvantaged areas has a long history. Studies such as those by Pollitt and Matthews (1998), and Rampersaud et al (2005) have suggested that children who eat breakfast regularly have better health and academic outcomes. Some research finds that it is having breakfast at school which makes the difference. For example, an evaluation of Minnesota's three-year universal school breakfast pilot found that students exposed to the intervention tended to improve their percentile ranking in standardized tests at age 11, compared to their rank three years earlier. Massachusetts's expansion of its School Breakfast Programme led to improved test scores and lower rates of absence and lateness among low-income elementary school children aged between 8 and 11.

The Magic Breakfast project on which this report is based was funded by the Department for Education and the Education Endowment Foundation (EEF). It was delivered by the charity Magic Breakfast which has a commitment to ending hunger as a barrier to learning. The evaluation provides evidence from a randomised controlled trial on the impact of breakfast club provision on a range of outcomes in England and the UK. The findings are also of international interest, as there is limited existing evidence from randomised controlled trials.

Key points

Research methodology

- Schools were eligible for the trial if at least 35 per cent of pupils were currently eligible for free school meals (FSM) and they either had no existing breakfast club provision, or the provision which they had was usually attended by 6 per cent of pupils or less.
- The trial placed 106 schools into either a control group or an intervention group. The intervention group received free food, support from a Magic Breakfast school change leader and a £300 grant towards up-front costs. In the interests of equity, the control group received support and resources for the two academic years after the project.
- Schools were recruited between May and June 2014. And the intervention was delivered to pupils in Year 2 and Year 6 throughout the academic year 2014-15. In June 2015, headteachers and classroom teachers were surveyed via email. Analysis took place between July and October 2015, prior to the impact analysis and release of the final report.
- Four case study schools were selected to ensure a mix in terms of school size, delivery approach, area type, ethnic profile and number of children in receipt of free school meals. Visits lasting one or two days were carried out in each of the schools. Researchers observed the delivery of breakfast provision and carried a series of interviews with staff and parents.
- The primary outcome measures for the research were the national assessments in English and maths which are taken by all pupils at state-funded schools in England.

These assessments are taken for Key Stage 1 at the end of Year 2 and for Key Stage 2 at the end of Year 6. Assessments are all teacher-assessed at the end of Key Stage 1, but at the end of Key Stage 2 they are both teacher assessed and externally assessed. The externally marked tests are used as the outcome measure at the end of Key Stage 2, since teacher assessments have the potential to be affected by teachers' knowledge of the intervention. Teacher assessments are also less finely scored.

- Other outcomes measures were used to show the possible mechanisms through which impact on attainment occurs. Information on pupil absence was collected from the National Pupil Database and information on child health, proxied by healthy weight, was collected by the National Child Measurement Programme.

Key findings

- Year 2 children in the breakfast club schools experienced around 2 months' additional progress compared to year 2 children in the control schools. These positive results would be unlikely to occur by chance.
- For the Year 6 children in the breakfast club schools, results for the main outcomes, reading and maths, were positive, but they could have occurred by chance. However, on the other measures of writing and English they experienced around 2 month's progress compared to

the year 6 children in the control group. These positive results were unlikely to have occurred by chance.

- As a result of the project, breakfast consumption at school increased, although overall breakfast consumption increased only marginally. This suggests that the school context (which was typically more social) or the school food (which was typically more nutritious) contributed to the above improvement in attainment, rather than whether or not breakfast was eaten.
- In the intervention schools, the proportion of students eating breakfast at school who reported eating at least one healthy food increased from 70 per cent at baseline to 86 per cent at follow-up, whereas the share of healthy breakfasts among intervention-school pupils eating at home remained the same.
- Attendance and punctuality of pupils in the intervention schools improved slightly, which could be a result of improved health (i.e. fewer days of sickness) or a greater incentive to arrive at school on time. The increase in the time which pupils spent in school and the reduced disruption due to lateness and absence, may therefore have also played a role in improving outcomes.
- There was no evidence that the pupils' Body Mass Index (a proxy for health) was affected. This data is, however, less reliable, as only school-level averages for pupils in a limited number of schools were available, and there was no control for BMI before the intervention.
- The effect sizes (i.e. the difference between control and intervention groups) for Key Stage 1 attainment are of a similar magnitude to the effect size which was seen in the pilot evaluation of universal free school meals in which led to the national roll-out of this policy.
- The impact of the intervention had a greater impact on breakfast consumption for pupils in Key Stage 2, but in spite of this, the main effect in terms of outcomes was smaller. This may be because improvements in concentration and behavior translated less into the externally marked Key Stage 2 assessments than into the teacher-marked key stage 1 assessments.
- Outcomes reported by case study participants were generally positive. Breakfast was perceived to have reduced hunger, increased exposure to new foods, improved behavior, attendance and social skills.
- Data from the four case study schools suggested that delivering breakfast effectively depended on a number of key factors, namely: being proactive about getting children to attend; the establishment of a solid daily routine built around time-saving strategies; and an effective team driving forward the provision.
- Activities which were thought to increase take-up of the breakfast provision included promoting it to parents and encouraging all children to attend, while sensitively targeting the pupils who were most likely to benefit.
- At the end of the intervention, around 70 per cent of the participating schools which responded to the follow-up headteachers' survey reported that they planned to continue breakfast provision.

Schools' concerns

- Although schools retained a commitment to the principle of giving children breakfast, some concerns were expressed, as below.

- There were concerns about how to remunerate staff and cover the cost of food without introducing a charge or raising the cost of breakfast. It was recognized that an elevated charge would defeat the purpose of providing breakfast if it became inaccessible to the children it was designed to support. Even where staff were reimbursed by time off in lieu, there was some uncertainty as to whether the arrangement could continue.
- There were some concerns linked to the unique role of the 'breakfast champion', i.e. that if that particular individual were to leave the school, the momentum would be lost. Linked to this were fears that schools could be moving towards an overdependence on the goodwill of delivery staff which could be difficult to sustain following staffing changes.

Limitations of the research

- The results of this evaluation are relevant to schools which have a similar social context to those in the trial, i.e. those in urban areas which have a larger than average proportion of pupils eligible for free school meals.
- Despite signing up to provide a universal free breakfast, schools had different approaches to breakfast club provision, according to their constraints
- During the project period, around 40 per cent of control schools set up some type of breakfast club provision. Although this was very limited in some cases, it is likely that some pupils in control schools were benefitting from universal free breakfast clubs; this could evidently have skewed the comparison between the control and intervention schools.
- The fact that Key Stage 1 outcomes are based on teacher assessments has the potential to introduce some bias if teachers' perceptions are affected by knowledge of participation in the trial. However, teacher assessments and externally-marked tests at Key Stage 2 show a similar effect of the breakfast club, suggesting that teacher assessments are reliable indicators.

Cost

- The total cost of the project was £4,462.11 per school. Schools also used 820 person hours to deliver the intervention which included: 87 teacher hours, 449 teaching assistant hours, 164 support staff hours and 100 volunteer hours over the year.

Conclusion

- UK policy appears to be moving towards an increase in the provision of breakfast clubs. Therefore, further research is required in order to inform schools about the most effective ways of delivering provision in order to improve attainment. Through case study visits, this evaluation has suggested that school context is an important determinant of breakfast club provision; further research could shed more light on the effects of the choices which schools make, such as when in the school day to provide breakfast and whether or not to charge for it.

The full document can be downloaded from:

https://educationendowmentfoundation.org.uk/public/files/Projects/Magic_Breakfast.pdf