Personal Financial Education: Evidence of Success from Recent Published Studies

The Money Charity
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What this paper does

Drawing on recent literature evaluating financial education programmes, this paper looks at the educational methods associated with larger-than-average improvements in financial knowledge and behaviour. Evidence of effectiveness can help those delivering financial education in their choice of methods and assist funders determine which approaches are likely to offer most benefit to target populations.

"Financial education" in this context means (a) education for ordinary consumers (young people and/or adults) in personal financial management, and (b) education in personal and small business financial management for small business owners.

Introduction

Some studies of financial education published in the mid-2010s suggested rather low effects for interventions designed to improve personal financial knowledge and behaviour.[1] However, a recent meta-study (Kaiser et al 2020) looking at the rapidly growing literature and confined to high quality studies using randomly controlled trials (RCTs) found significant positive effects in the order of 0.1 to 0.2 standard deviations (SD).[2] These effects are reported to be of comparable size to educational interventions in other subject areas and to be cost-effective to deliver.

While the average positive effect was 0.1-0.2 SD, some of the studies reviewed showed larger positive results, as high as 1.4 SD.[3] While part of the extra effect may be a result of random variation, it is also possible that there are pedagogical reasons for the differences. The Money Charity approached the authors of the paper asking for references to the studies showing particularly high effects. The authors sent us six examples of higher-performing programmes. This paper looks at the methods used in these six programmes/interventions, to see whether they provide support for approaches already being used in the UK or contain ideas that could be adapted for use in the UK.

The reports show that the methods associated with strong positive results are those that:

- engage the emotions.
- use active learning methods (ALMs) such as games and role-plays.
- use storytelling to make their points.
- enable participants to focus in vivid ways on the long-term consequences of financial decisions.
- combine financial education with goal setting and/or individual counselling.
- communicate practical rules of thumb that participants can implement.
- use ALMs in the classroom.

The findings are summarised below with references to the reports at the end of this paper.

Patience is a virtue: Alan & Ertac 2018

Working with the Turkish Ministry of Education in Istanbul, Alan & Ertac trialled an intervention for elementary school pupils focused on developing patience by choosing between different imagined futures involving immediate or deferred consumption. They found significant and persistent positive effects on financial behaviour, and on in-school behaviour in general, though the latter was not the primary purpose of the research. It is

[1] For example, Miller et al 2014, Fernandes et al 2014, Kaiser & Menkhoff 2016.
[2] Standard deviation is a measure of the average dispersion of a set of observations. In a normally distributed set of observations (a bell curve), 68% of the observations fall within ±1 SD of the mean.
[3] Kaiser et al 2020, page 34.

hypothesised that a stronger ability to delay gratification has a positive flow-over effect into general behaviour.

The core material involved eight mini case studies and supporting class activities such as games, with topics that included imagining the future self (forward-looking behaviour), self-control against temptation goods, smart shopping, games to make future utilities vivid and close by, saving for a target, viewing and evaluating alternative future outcomes, and developing coping mechanisms against temptation to meet a savings target.

One example is a case study titled “Zeynep’s Time Machine”. This tells the story of Zeynep, a girl who wants a bike for which she needs to save but who is also faced with alluring short-term consumption possibilities. The time machine allows Zeynep to travel to two alternative future states (having saved for the bike or not) and observe the consequences of her decisions. Students discussed how Zeynep would feel in each scenario and were asked to imagine themselves in similar situations. One class activity complementing Zeynep’s story involved children building a time machine and pretending to travel to future dates of their choice that were important in terms of target setting (e.g., end of the semester, when they get their report cards), as well as drawing related pictures.

The exercises were used to generate classroom discussion, so that children could process their own conclusions.

The study involved treatment and control groups, with children tested using incentivised decision tasks up to three years after the intervention. The positive behavioural effects were in the range of 0.2 to 0.3 SD.

Entertainment works: Berg & Zia 2017

Working with a TV production company, the South Africa National Debt Mediation Association (NDMA) and financial capability experts, Berg and Zia studied the impact of a money and debt-related storyline in a nationally popular TV series called *Scandal!* The storyline ran over several months and involved an established lead character falling into debt through poor shopping decisions then trying to gamble her way out with disastrous consequences. Finally, she was helped by an employee of the NDMA to get her debts under control and rebuild her finances.

The researchers established their treatment and control groups by incentivising the treatment group to watch *Scandal!* while incentivising the control group to watch a different TV series that played at the same time and which did not involve a money and debt storyline.

They found that the *Scandal!* storyline engaged the audience and had lasting effects on their financial knowledge and behaviour. There were significant improvements in specific financial knowledge, likelihood of borrowing from a formal source rather than an informal one, making less use of hire purchase and a lower propensity to gamble.

Interestingly, while the intervention by NDMA had an impact at the time of viewing (with a surge in calls to the debt line), it was forgotten by participants after a few months. However, participants could still vividly recall the main storyline involving the debt struggles of the established lead character.

Goal-setting and one-to-one counselling: Carpena et al 2017

This RCT involved 1,300 poor urban households in Ahmedabad (Gujarat), India, with the treatment group given a five-week, high-quality, video-based financial education programme that covered budgeting, savings, credit and insurance. Three additional treatments were tested: financial incentives, goal-setting and personal counselling.

The researchers found that financial education had a positive effect on financial awareness and attitudes but no effect on financial numeracy. There was no effect on financial behaviour from financial education alone or from combining financial education with financial incentives. However, there were significant positive behavioural effects from combining financial education with goal-setting and individual counselling.

The goals tested were personalised, non-binding goals set by the participants as part of the education programme. These led to improved behaviour in budgeting, saving and avoiding borrowing for unforeseen expenses.

Counselling had a positive impact on regularly writing budgets and opening a formal savings account.

The largest effects occurred with the sub-group that received all three treatments: education, goal setting and counselling.

Rules of thumb: Drexler et al 2014.

Working with a micro-finance bank in the Dominican Republic, Drexler et al offered two different types of financial education to randomly selected groups of small entrepreneurs: (a) standard lessons in small business accounting, and (b) simple rule of thumb-based lessons. For example, one of the rules of thumb was for small business owners to have two drawers (or purses) for their money, a personal drawer and a business drawer. If they took money from one to put in the other, they had to put an IOU in the relevant drawer to keep track of the transfers.

It was found that the standard accounting approach produced no measurable change in participants' financial behaviour or record keeping, whereas the rule of thumb approach produced significant improvements in both. Business revenues and accuracy in reporting profits improved for the rule of thumb treatment group. The effects were particularly marked for the less sophisticated participants.

It seems that as well as being simple and practical, the physical nature of the rules of thumb helped participants recall and use them.

Active Learning Methods: Shephard et al 2017

Working with the Ministry of Education of Rwanda and the Dutch educational charity Aflatoun International and supported by, among others, the UK Department for International Development, this RCT tested the use of active learning methods to teach personal finance in Rwandan secondary schools.

The programme began by using active learning methods (ALMs) to teach teachers how to use ALMs, then delivered the programme to the treatment group using ALMs at the rate of one hour per week over forty weeks. The article does not describe the methods used in detail, but the curriculum topics included saving, budgeting, resource management, environmental awareness, planning, entrepreneurship and employment.

The intervention increased teachers observed use of ALMs as well as the average time on task of the students observed in class. Students in the treatment group also exhibited increased self-efficacy, financial capability and self-reported savings behaviour. “Self-efficacy” is defined as “the belief that one can take an action and overcome obstacles to do so” and is closely related to goal setting.

The effect sizes in this study were relatively large: 0.3 to 0.5 SD.

Classroom-based Active Learning Methods: Kaiser et al 2018

Working with the Ugandan Central Bank and the German development agency GIZ, Kaiser et al conducted an RCT involving small retailers in western Uganda in 2015. The RCT tested two approaches, a traditional classroom lecture and a newly developed classroom format using active learning techniques (ALMs).

The main feature of the latter is described as “five distinct stations, designed to provide problem-based learning opportunities and encourage discussion among the participants.” Exercises and materials were designed to engage participants with the subject matter, e.g., through completing budgeting exercises, sorting different savings and investment options according to their safety risk/return-profiles, differentiating between sensible and non-sensible reasons to take up a loan, and completing an exercise on whether financial services are regulated by the central bank or not. Respondents were encouraged to share their experiences and complete the exercises. The trainer had the role of a learning facilitator.

Participants were surveyed after six months and again after three years.

ALMs were found to produce significant behavioural changes, particularly to savings and investment behaviour, while the classroom lecture approach produced no measurable change. The positive effect in this study was more pronounced for those further up the income distribution.

The researchers studied the causal mechanism(s) for the effect of ALMs and found a link between improved financial behaviour and the three variables of financial literacy, self-control and financial confidence. There was also evidence for a social mechanism: that those who participated in the ALM sessions were more likely to be involved in social groups such as savings clubs.

A key finding of this study was that ALMs can be used successfully in the classroom and do not rely for their effectiveness on non-classroom settings.

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We do this by developing and delivering products and services which provide education, information and advice on money matters for those in the workplace, in our communities, and in education, as well as through influencing and supporting others to promote financial capability and financial wellbeing through consultancy, policy, research and media work.

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