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Financial Services Authority

Evidence of impact: An overview of financial education evaluations

Prepared for the
Financial Services Authority
by the Personal Finance Research Centre
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FSA Foreword

Background

The Financial Services Authority (FSA) leads the National Strategy for Financial Capability in partnership with Government, the financial services industry and the third sector. The strategy aims to improve the financial capability of the UK population. The results of the FSA's major financial capability survey[1] showed that in 2005, many UK consumers lacked the confidence and capability to make effective decisions about their money.

The FSA launched a seven-point programme[2] in March 2006 to improve significantly people's levels of financial capability and, together with partners, has focused on delivering these priority initiatives. In March 2008, following recommendations of the independent Thoresen Review of Generic Financial Advice[3], HM Treasury announced that the FSA will also lead a two-year "Pathfinder" programme to set up a service offering free, impartial information and guidance on money matters.

Over time, improving people's financial capability will not only benefit them directly, but also enable them to exert a stronger influence in the retail markets, creating more effective and efficient markets and reducing the need for regulatory intervention.

Measuring success – the challenge of evaluation

The FSA financial capability survey measured different types of financial behaviour and attitudes in five key areas: making ends meet, keeping track of money, planning ahead, choosing products, and staying informed across the UK population. This survey is due to be repeated in 2010 and every four to five years thereafter.

Improvements in the level of financial capability require a long-term change in attitudes, habits and behaviour towards money. The National Audit Office has recognised that measuring those changes is inherently difficult. In a recent report[4], the NAO suggested "*The FSA may be able to build on its successful record of consumer research by using sophisticated methodologies to demonstrate a clearer link between improved outcomes and its own work". (Section 5.18 National Audit Office Review 2007).*

This was also discussed at the Treasury Select Committee, where representatives outlined the need to be able to understand not only how the National Strategy impacts on outcomes and behaviour but also the effectiveness of different 'types' of intervention.

With these challenges in mind, and in order to inform further evaluation of financial capability initiatives, the FSA commissioned two academic literature reviews: a review of evidence from policy evaluation of financial capability initiatives around the world; and a review of behavioural economics literature on the likely impact of financial capability

[1] *Levels of Financial Capability in the UK: Results of a baseline survey*, FSA March 2006. *Financial Capability in the UK Establishing a Baseline*, FSA, March 2006
[2] *Financial Capability in the UK: Delivering Change*, FSA
[3] *Thoresen Review of Generic Financial Advice: Final Report*, HM Treasury, March 2008
[4] *Review of the Financial Services Authority*, National Audit Office, April 2007.

initiatives on behaviour. These reviews confirm the importance and the unresolved challenges of evaluating robustly the effectiveness of initiatives to improve financial capability.

"Evidence of Impact": Review of policy evaluation literature by Adele Atkinson of the Personal Finance Research Centre, University of Bristol

The FSA commissioned Adele Atkinson to review past evaluations of the effectiveness of financial capability initiatives and financial education more broadly, both in the UK and other countries. This was intended to deliver the following:

- An overview of the evidence on the incremental impact of financial capability interventions on people's behaviour and attitudes – i.e. what is the difference compared with the world if initiatives had not been introduced?
- Summaries from the available evidence on the likely impact of different types of financial capability initiative - e.g. school-based learning, one-off seminars, provision of printed information, or advertising via TV/newspapers/radio - and the likely impact on different target groups.

Adele's work has largely confirmed that, not only has there been relatively little work in the past on financial capability in the UK or other countries, but also that rigorous, credible policy evaluation showing the incremental impact of financial capability work is difficult to find.

She therefore offered a useful summary of areas where problems have occurred, and what good practice would be to overcome these, which the FSA will take into account in designing future evaluation of financial capability initiatives:

- Clear objectives of the project and the evaluation
- Good quality data, including administrative records.
- A sample that is broadly representative of the target population
- Careful consideration of the sample size, taking into account the analysis that will be needed to understand the outcomes
- Well designed data collection instruments that are appropriate to the target group and to the initiative under evaluation
- A benchmark measure of knowledge, attitude and behaviour (before the initiative) and a follow up measure to identify change (after the initiative)
- A 'control' group to show the normal changes that take place in the absence of such an initiative
- Consideration of the time period necessary to identify change, balanced with consideration of the likelihood of collecting reliable data over extended periods of time.

"Financial Capability: A Behavioural Economics Perspective": Review of behavioural economics literature by Professor David de Meza, Dr Bernd Irlenbusch, and Professor Diane Reyniers (London School of Economics)

The FSA commissioned Professor de Meza, Professor Reyniers and Dr Irlenbusch to conduct a review of the behavioural economics literature, examining what this literature has to say about consumer behaviour when making financial management and/or choosing financial products, and in particular, the likely impact of financial capability initiatives, or other

information provided to consumers with the intention of encouraging better choices about financial products.

Drawing on a large and wide-ranging literature on consumer behaviour, this report argues that psychological rather than informational differences may explain much of the variation in financial capability reported in the FSA's financial capability survey, and that people's financial behaviour may primarily depend on their intrinsic psychological attributes rather than information or skills or how they choose to deploy them. In this context, the authors conclude that financial capability initiatives which are designed to inform and educate should be expected to have a positive but modest impact.

The FSA recognises that achieving widespread behavioural change will be a long process due to deep seated behavioural biases, and will take the findings of Professor de Meza et al into account in using conservative estimates for the likely behavioural impact of financial capability initiatives in ex ante assessments of cost-effectiveness (e.g. cost-benefit analysis).

Professor de Meza draws attention to recent literature which indicates that, in the context of widespread behavioural biases, two modes of financial capability work appear to be the most promising. These are the use of 'norms', which means directing people to a particular action such as higher saving, and the use of active intervention by a counsellor and/or individualised advice, rather than passive information or education.

The FSA and government's Money Guidance Pathfinder programme will include individualised advice both face to face and over the phone, and evaluation of this programme will provide useful new evidence on these promising modes of delivery.

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May 2008

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This report was written by Adele Atkinson at the Personal Finance Research Centre, University of Bristol. Adele has eight years experience of policy related research in the fields of economics, education and personal finance. She has expertise in both quantitative and qualitative research methods. She also has detailed knowledge of the specific behaviours, attitudes and knowledge that make up financial capability, since undertaking much of the original analysis of the Baseline Survey of Financial Capability and secondary analysis of the data for a range of clients.

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All comments and conclusions, and any errors or omissions remain, as ever, the responsibility of the author and the views stated herein do not necessarily reflect those of any other party.

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1. Executive summary

Introduction

The Personal Finance Research Centre at the University of Bristol has undertaken a review of evaluations of financial capability strategies on behalf of the Financial Services Authority (FSA).

The FSA leads the **National Strategy for Financial Capability** and this review is designed specifically to further inform that strategy. The National Strategy targets:

- **school children,**
- young people who are **Not in Education, Employment or Training (NEET);**
- students in **universities and Further Education (FE) colleges;**
- employees in their **workplace;**
- and **new parents.**

It also provides straightforward information through the **Moneymadeclear** consumer website and publications, and reaches a wide range of consumers via **Partnership Development** initiatives with not-for-profit organisations.

The review was designed to meet two objectives:

1) To describe the extent to which the empirical literature identifies any incremental impact of financial capability interventions on people's behaviour and attitudes:
    - paying particular attention to the evidence about the effectiveness of different delivery methods of financial education and the impact on key target groups; and
    - highlighting which aspect(s) of financial capability are being delivered by the various schemes wherever possible.
2) To create a set of plausible estimates of the proportion of people likely to respond to types of financial capability initiatives by making changes in their behaviour, and the extent of any changes they make to their personal finances.

Unfortunately, we have found insufficient robust evidence to meet the second objective. We therefore identify what we believe are the key components of a robust evaluation of a financial capability strategy, and explain our reasons for being cautious about generalising from the findings of the existing literature.

We summarise the impact of financial capability interventions on consumers' knowledge, attitudes and behaviour, taking into account the limitations of the evaluation methods used. Reflecting the various strands of the National Strategy for Financial Capability, we report the outcomes of initiatives aimed at the target groups listed above and consider the impact of various delivery methods, including workshops and seminars, web based information and training, booklets and printed matter, and one-to-one guidance.

While there are many initiatives designed to improve levels of financial capability across the English speaking world, there is little in the way of robust evidence to show the overall affect of financial capability training. After summarising the reports available, this report therefore concludes with a detailed discussion of the factors that would, ideally, be present in an evaluation of initiatives designed to improve levels of financial capability. We recognise that good quality evaluation is both costly and time-consuming, but there are certain aspects that are necessary if the results are to be credible.

Financial capability strategies in schools

Schools are seen to play a pivotal role in the delivery of financial capability training. However, there have been relatively few evaluations of strategies within schools and there does not appear to be a consensus about the changes that we might expect to see as a result of financial education. Some evaluations, such as the American Sure$tart study of high-school seniors, focus almost exclusively on knowledge accumulation, whilst others focus on the subsequent behaviour in adulthood (Mandell, 2006a; Bernheim, et al. 2000; Mandell and Klein, 2006).

While some of the evaluations *report* improvement in knowledge, identified through interviews or self-reporting surveys, few attempt to test knowledge directly. Several studies rely heavily on self-assessment questions, such as 'I know all about the costs of taking out a loan' which are open to wide interpretation and almost certainly reflect self-confidence as much as ability. The US Jump$tart survey does test knowledge and indicates that average scores are not improving across time, and that those teenagers who have received personal finance education do not appear to be any more knowledgeable, on average, than those who have not. It does seem from the evidence that **we should not expect rapid increases in knowledge amongst any but the youngest children**. It should be noted, however, that it is not clear what education level the multiple choice tests used by Jump$tart are aimed at, and we suspect that some questions may be far too complicated for pupils with below-average literacy or language skills.

American studies of older respondents (high-school leavers and adults aged between 30 and 49

respectively) indicate that the financial behaviour of school leavers is not influenced by financial education in school, but that children who did not benefit from a frugal role-model at home became more financially capable adults if they received compulsory financial training at school.

The evaluations of financial education within schools rarely discuss the delivery mechanism in detail, although there have been some studies of the impact of novel forms of delivery including an American study of the impact of a comic play about saving and a Scottish pilot of short stories (Mandell, 2006; Cochrane, 2006). The studies are too small to be conclusive but suggest that younger pupils may learn from both types of delivery, and there is some indication that their attitudes can be changed as a consequence. Recent evidence from Ofsted also indicates that the delivery mechanism does matter (Ofsted, 2008). In particular, it is of some concern that Ofsted found evidence to suggest that **teaching personal finance within maths classes may result in poor financial education while also hindering the development of mathematical skills.**

Strategies aimed at young adults

Young adults fall into three groups: those in education or training (including school sixth forms, colleges and universities), those in work, and those who are not in education employment or training (NEET). While the Schools and Workplace strategies will reach some of these young people, separate strategies are necessary to ensure that the needs of the other groups are met. It is research relating to these additional strategies that we consider under the heading **Young Adults**. We have therefore sought evaluations of schemes aimed at young adults who are **NEET** as well as those in **further education** or at **university**.

There is currently very little evidence about the outcomes of financial capability training with NEETs as they are not a group that is widely discussed beyond the UK. A qualitative pilot study undertaken with a small number of young people indicated that they did learn important lessons about financial topics such as budgeting, particularly if the same messages were repeated on different occasions. It also clearly **highlighted the importance of having trusted adults working with this group of young people, who are typically disillusioned with learning in a formal setting, and often have very complex needs** (Atkinson, 2005). Following this pilot, the FSA has funded the development of a train-the-trainer scheme for key youth work professionals and other individuals who come into contact with young NEETs, in order to provide key financial skills to this group through trusted parties. The findings of this research indicate that a range of delivery methods are needed to provide youth work professionals with courses that provide the technical detail needed whilst remaining engaging and memorable.

In the UK, some sixth form and further education students have access to the *ifs* School of Finance Certificate in Financial Studies. The University of Manchester has considered the impact of this course on students. The study has no control group, and is very difficult to draw conclusions from. However, Ofsted found in their recent inspection of schools exhibiting best practice that '**Students taking accredited courses often had the most comprehensive understanding of personal finance'** (Ofsted, 2008).

Studies of American students have considered both university courses designed specifically to increase levels of financial literacy, and online courses aimed at improving credit card management amongst new card holders (Gutter and Renner, 2006; Gartner and Todd, 2005). The study by Gutter and Renner showed that some students improved their financial behaviour following a financial education course (which was compulsory for some, elective for others), with seven percent opening a retirement account after the course. There was also a five percentage point increase in the proportion using a budget. Behavioural changes were also apparent following the completion of online education in the Gartner and Todd study, with students becoming less likely to miss payments but also becoming more active credit card users. This study indicates that a proportion of students who are motivated enough to take a short online course will subsequently change their behaviour. Furthermore, the existence of a control group in the Gartner and Todd study indicates that such a change is not purely as a result of other factors such as increasing maturity or public information campaigns.

The studies of initiatives aimed at young adults most clearly indicate **the importance of having a sensible control group**. The ordinary financial changes that occur as teenagers become adults (such as gaining access to credit, and having larger incomes to manage) can entirely overwhelm any changes caused by financial education and must be taken into account when considering outcomes.

Workplace financial capability

Financial capability strategies in the workplace typically aim to encourage workers to contribute to savings and pensions, and to provide them with skills to make the most of their current income. Other issues covered by some of the workplace initiatives evaluated include identity theft and home purchase. Delivery is typically via seminars or workshops, although the FSA's own scheme also includes information leaflets and CD ROMS.

There have been a number of evaluations of workplace schemes, primarily undertaken in the USA.

As with the evaluations of initiatives aimed a school children reported above, some workplace evaluations focus on particular schemes, whilst others look at larger datasets to identify differences across groups of people who received financial training and control groups who did not.

In some workplaces structured financial education is provided at various points in an employee's career, from recruitment through to retirement (Garman, et al., 2000). Other employer schemes discussed in this report provide one-off workshops similar to those delivered through the Financial Capability Strategy or annual benefits fairs aimed at encouraging savings behaviour.

The evidence suggests that, in the US at least, workplace education can lead to an increase in saving for retirement in the medium to long-term. A large-scale study of US adults suggests that this increase is focused on those who would not otherwise have sufficient in savings (Bernheim and Garrett, 2003), and whilst Kim (2000) concludes that a one off seminar may not be sufficient to change behaviour in the short-term, Duflo and Saez (2003) do provide evidence for an increase in savings following attendance at a benefits fair.

Several evaluations have concluded that workplace initiatives appear to improve recruitment and retention. This presumably indicates that employees consider financial education to be a perk; although in one study the vast majority of employees (70 per cent) valued the workshop they attended at less than $100 (Kim, 2000).

It is important to note that the current FSA workplace strategy is based on the notion of one-off events, while the literature typically discusses schemes that are run on a recurring scheme. The only (tentative) evidence from a similar delivery mechanism was that **a short seminar was not sufficient to make substantial changes to attitudes, knowledge or behaviour.**

<u>Financial skills for new parents</u>

The birth of a baby inevitably impacts on the financial situation of a household, and this can change the ways in which adults need to manage their finances and the products they need to hold. In extreme cases, the additional financial pressures can tip households into difficulty. It is for these reasons that the Financial Capability Strategy includes a workstream that is focused on new parents.

The delivery mechanism for this workstream is unusual. Parents are given a robust folder containing information about a range of financial matters, from prioritising spending and claiming benefits to

investing Child Trust Fund vouchers.

Unfortunately there appears to be no comparable study to draw on as a guide to what we might expect from the new parents workstream. Neither does there appear to be any completed evaluations of other schemes using the same delivery method, despite the fact that many organisations provide written leaflets, booklets and guidance relating to financial matters.

Other strategies

The FSA has a number of partnership developments underway which aim to deliver financial capability skills to specific groups of adults. Partner organisations include the National Housing Federation, Gingerbread and Age Concern. Because of the very focused target groups for such initiatives it is difficult to find close matches in the evaluation literature. However, there have been a number of evaluations of schemes aimed at similar groups, often run by third sector organisations.

Many of the evaluations identified focus on schemes that aim to improve the financial skills of people on low incomes. Some of these are linked to asset building initiatives or home ownership, but others are stand alone courses designed to reduce social exclusion.

It has been noted that it can be difficult to recruit people on low incomes to take part in financial literacy education. This is made worse if participants incur costs - such as travel or childcare costs - something that should be taken into account by others developing such initiatives.

Most schemes aimed at people on low incomes are run as classroom workshops over a period of weeks and some offer some one-to-one support alongside group provision. **The best are designed to take into account the language and literacy needs of the participants, although even the most basic have still been criticized by participants for being too difficult** (Anderson, et al., 2002). A pilot study in the UK that targeted low income adults who also had basic skills needs faced the problem of low literacy levels and identified the difficulties reaching this group through printed materials (McMeeking, et al., 2002).

People receiving financial education alongside asset-building initiative appear to gain more from the initiative than those who are simply encouraged to save through the use of financial incentives. For example, Leckie et al. (2008) report that participants in the Learn$ave demonstration project who also received training were more likely to budget than those who were only savers. Furthermore, Sherraden et al. (2004) reported that savers without training complained that nobody had helped

them to understand how to save and budget, indicating a genuine need.

Other schemes that have been evaluated have focused on a range of groups including parents, bankrupts, women escaping from abusive relationships and high-risk home buyers. We discuss the findings of these in the full report.

There are also a number of initiatives that have not sought to target a narrowly defined group of people. These initiatives often rely on easily accessed resources, such as online information and tools, although delivery through workshops and one-to-one provision is also available (for example via Citizen's Advice in Britain and Money Smart courses in the US). The evidence suggests that people find these initiatives helpful, and the evidence from the Federal Deposit Insurance Corporation (2007) indicates that at least some people appear to change their behaviour as a result – becoming more likely to budget and comparison shop, for example.

Initial analysis of web-based information in New Zealand and the UK indicates that people do intend to make changes to their behaviour as a result of the financial information they have accessed (Pensions Policy Institute, 2006; FSA internal documentation). Future evaluations will be able to consider whether intentions lead to action.

It is striking that there are so many schemes aimed at improving financial literacy, and yet we know relatively little about how to encourage people to participate in such training. It is not necessarily easy to reach people who do not seek help or advice. During the second pilot of the Saving Gateway in the UK, for example, uptake of financial education provision by region ranged from just eight per cent to a high of 18 per cent of Saving Gateway account holders (Harvey, et al., 2007). Given that this group were actively seeking to save and therefore improve their financial situation, we would expect much lower take-up amongst the general population.

Summary and conclusion

It is not an easy task to evaluate the impact of a financial capability initiative, and few of the evaluations summarised can be used to form robust assumptions about how a particular scheme might be expected to impact on a population of interest. It also appears that there is some difficulty in identifying what an initiative might achieve, and deciding how to measure success, possibly because of a lack of clear objectives at the outset.

We have considered the evidence from over 70 evaluations, few of which have provided evidence that could be used to draw wider conclusions in isolation. Even by considering the totality of the

evidence we know virtually nothing about the impact of initiatives on particular aspects of financial capability, or the most appropriate delivery mechanisms for use with particular groups, or to cover particular information.

The majority of evaluations that have identified measurable outcomes appear to have focused on savings behaviour, but it is not clear whether this is the easiest behaviour to change or the easiest to measure. Overall the evidence relating to improvements in terms of **money management** and **planning ahead** is stronger than improvements in the other financial capability domains. There appears to be little if any change in **staying informed,** the domain that includes knowledge. It may be that any short-term improvements in knowledge can only be retained through hands-on experience.

The literature indicates that while it is widely believed that financial education in schools is valuable, the outcomes are likely to be long-term and will therefore be difficult to measure during an evaluation period. In the shorter term there may be some improvement in **confidence** but the evidence that is currently available suggests that only the very youngest gain financial **knowledge** through school interventions. Rather, it appears that the main impact of school financial education is to improve **behaviour** in adulthood. For example, Bernheim et al. (2000) found that compulsory financial education was associated with positive savings behaviour of adults who had grown up with parents who were not savers.

Strategies aimed at adults also appear to have some long-term benefits. Workplace financial education seminars have been shown to be associated with an increased likelihood of saving for retirement. **Improved recruitment and retention appears to be an additional, and perhaps unexpected, advantage of workplace financial education, indicating that employees value such provision**.

There has been no systematic testing of the delivery methods used to increase financial capability. This is a serious oversight. The process evidence that is available indicates that classroom or workshop delivery depends on the quality and suitability of the teaching materials available but also on the confidence of the teacher or facilitator. We know virtually nothing about the factors that might influence the success or failure of schemes using other forms of delivery. We have insufficient evidence to conclude that facilitators with personal finance expertise from outside an organisation are better (or worse) at teaching financial capability than the trusted intermediaries who are organising such education, and we cannot say whether it is easier to train financial experts to work with target groups or to provide financial training to those already familiar with the groups being targeted.

Given the difficulty in drawing firm conclusions to meet our second objective (discussed above), we

end this report by highlighting the factors that we believe should be included in an evaluation.

Evaluations typically focus on the **process** of providing the initiative under scrutiny, or the **outcomes** of that initiative. In this report we are primarily concerned with outcome initiatives as we are trying to summarise the likely impact of various initiatives on target populations.

A good outcome evaluation **must be designed before the programme is implemented** and requires the following:

- clear objectives of the project and the evaluation (including identification of the target audience);
- good quality data, including administrative records. This should be focussed on key measures and background information to reduce the burden on programme participants and providers;
- quantitative data collection with a high response rate giving a sample that is broadly representative of the target population;
- careful consideration of the sample size, taking into account the analysis that will be needed to understand the outcomes;
- well-designed data collection instruments that are appropriate to the target group and to the initiative under evaluation and the outcome being measured;
- a benchmark measure of knowledge, attitude and behaviour (before the initiative) and follow up measures to identify change at various point after the initiative — identifying immediate and sustained change;
- consideration of the time period necessary to identify change, balanced with consideration of the likelihood of collecting reliable data over extended periods of time; and
- a 'control' group to show the normal changes that take place in the absence of such an initiative.

Crucially, the reporting of the evaluation must make it clear to the reader exactly what the initiative set out to achieve, how the evaluation was designed, and what weaknesses are apparent in that design. It should report outcomes that relate clearly to the initiative and explain the choice of any scoring method used to summarise outcomes.

2. Introduction

The Financial Services Authority (FSA) has commissioned this report from the Personal Finance Research Centre (PFRC) to inform its financial capability strategy.

The **first objective** of this report is to describe the extent to which the empirical literature identifies any incremental impact of financial capability interventions on people's behaviour and attitudes. It aims to pay particular attention to the evidence about the effectiveness of different delivery methods of financial education and the impact on key target groups. It will also highlight which aspect(s) of financial capability are being delivered by the various schemes.

The **second objective** was to have been to create a set of plausible estimates of the proportion of people likely to respond to types of financial capability initiatives by making changes in their behaviour, and the extent of any changes they make to their personal finances. These estimates were intended to inform cost-benefit analysis. However, we do not believe that there is sufficient robust evidence to make this possible. We therefore identify what we believe are the key components of a robust evaluation of a financial capability strategy, and explain our reasons for being cautious about generalising from the findings of the existing literature.

The evaluations summarised in this report vary widely, both in terms of the aims and objectives of the project under evaluation and of the methods used to identify outcomes and measure impact. Cost and time limitations — along with an understandable lack of enthusiasm amongst participants to be involved in long-term studies of their financial knowledge, attitudes and behaviour — make it impossible for any evaluation to be equivalent to a pure experiment in terms of reliable data and replicable results. We therefore identify particular aspects of the methods used that indicate that caution is necessary in interpreting the results. This is not to be seen as a criticism of the research, but as recognition of the difficulties in evaluating these types of initiatives and of generalising from the results.

There is a great deal of literature relating to financial behaviour and financial capability that is beyond the scope of this research. For example, there is a body of evidence in relation to pension contributions and savings behaviour. Similarly, the FSA has undertaken a number of consumer-focused studies to understand the ways in which people use advice and read product information as they make a product choice (sometimes referred to as 'point of sale' information). This report does not include those reports, but looks only at the evidence of outcomes from specific financial education initiatives rather than more general policies aimed at understanding or changing financial behaviour. Finally, it is worth noting that there are a number of other organisations who have sought to describe the various financial education schemes on offer around the globe, or have summarised the findings from evaluations of such schemes. While we have read a number of such

reviews, what follows is based on our own interpretation of the evaluations discussed. We describe our approach to the literature review process below.

We report these evaluations under five headings that broadly represent the National Strategy target groups, beginning with financial capability initiatives within **schools**. We then look at those aimed at **young adults**, those delivered in the **workplace** and those targeting **new parents**. We also discuss initiatives aimed at **other target groups**. In each case we focus on the methods and findings of the outcome evaluations, look at the delivery methods and topics covered by the initiatives and report key process findings. In particular, we try to highlight which of the five aspects of financial capability the initiative might hope to improve, namely **keeping track, making ends meet, planning ahead, choosing products** and **staying informed**.

It is clear that despite a great deal of activity in terms of delivering financial education there is little in the way of robust evidence to show the overall impact that this activity has had. After briefly summarising the findings detailed in section 1, section 2 therefore concludes with a detailed discussion of the factors that would, ideally, be present in an evaluation of initiatives designed to improve levels of financial capability.

2.1. Methods used to review the literature

PFRC were invited to undertake this literature review on behalf of the FSA following a competitive tendering process. The FSA requested a "comprehensive literature review of past evaluations of the effectiveness of financial capability initiatives and financial education more broadly, both in the UK and other countries." It was agreed that this would be a review of literature written in English, the majority of which should be relatively recent (published less than ten years ago).

The literature review was undertaken over a three-month period, and included relevant reports made available before April 2008.

Most of the research in the field of financial capability is policy focused, and is not necessarily published in peer-reviewed journals. Indeed, some is written purely for internal purposes and is never made public. As PFRC has specialist knowledge in the area of financial capability we have a number of research contacts in the field. This has enabled us to identify and access both published and unpublished research.

We have reviewed evidence accessed in the following ways:

1. Relevant literature already known to the research team
2. Literature searches using University of Bristol electronic journals and online search engines (including Google and Google Scholar) using key words and phrases identified from

known literature, including: Financial literacy, financial education, financial capability, financial advice, money advice, home economics, personal economics, financial planning, pension choice AND Evaluation, results, outcomes, improvements

3. Literature referenced in articles found through points 1 and 2 above
4. Personal contact with a small number of authors known to publish in the relevant fields
5. Personal contact with a small number of organisations known to deliver financial capability schemes.

The literature reviewed consists almost entirely of primary reports of evaluations, rather than data drawn from other literature reviews and discussion papers. This allows us to draw our own conclusions about the appropriateness of the literature to the topic under discussion, and the quality of the research being reported. However, we have not applied strict quality criteria to the literature reviewed as this would seriously limit the evidence available. Rather, we have discussed the approach taken in each case, and looked for consistencies or discrepancies across evaluations.

Information from the reports identified was entered onto thematic grids, and analysed by two researchers (Adele Atkinson and Professor Elaine Kempson). Particular attention was paid to identifying the target group(s), the aspects of financial capability being taught and the delivery methods used in order to find research that reflected the aims of the National Strategy. The outcomes summarised were also chosen to draw out findings of relevance to the National Strategy, taking the most robust outcome measures where several were available.

3. Outcomes of financial education strategies

In this section we discuss the delivery methods, topics covered and outcomes of many financial capability initiatives. They are all designed to improve some aspect of financial capability, although in some cases the exact aim is not made explicit in the evaluation report.

We have subdivided the strategies to reflect the FSA workstreams. There is inevitably some overlap, and findings from one aspect may well be of relevance to others. It should also be noted that even within workstreams, particular target groups may be rather different. For example, consider the variety of evaluations of relevance to the workplace strategy; the needs and experiences of high earning chemical workers may not reflect those of people working in low-paid factory work, and we can not predict outcomes for one group based on the experiences of the other group.

Almost all the financial education initiatives discussed in this report take the delivery mechanism as a given, and in the majority of cases delivery is in a workshop setting. It is unfortunate that there has not been more testing of a range of methods of delivery given that Hirad and Zorn found noticeable differences in the outcomes of mortgagors depending on how financial education was provided (Hirad and Zorn, 2001)[1]. The areas of financial capability covered most often are **money management** (**keeping track** in particular), and **planning ahead**. Keeping track is particularly encouraged in schemes aimed at young people and those on low incomes (despite the fact that people living on a low income are often excellent money managers (Atkinson, et al., 2006; ECOTEC, 2004) whilst workplace schemes are most likely to aim to increase levels of planning ahead through retirement savings. Participants in financial education initiatives are often also encouraged to shop around when **choosing products**. General financial knowledge is most likely to be taught in schools, and reflects the **staying informed** domain of financial capability.

It is assumed that education will increase knowledge, but the evidence does not suggest a massive change in financial knowledge following a financial education course. There is more evidence that behavioural changes occur, either immediately (for example by becoming more responsible credit card users) or after a period of time (such as starting to build up savings in middle age). More

[1] They report that one-to-one counselling led to the lowest mortgage delinquency rates. They also found evidence that the home-study and classroom provision was beneficial, but the telephone counselling did not have a significant impact.

research is needed to understand the relationship between financial knowledge and changes in behaviour.

3.1. Financial education in schools

In 2007 the European Commission set out eight basic principles to guide financial education providers. Principle 3 stated that:

> *Consumers should be educated in economic and financial matters as early as possible, beginning at school. National authorities should give consideration to making financial education a compulsory part of the school education curriculum.* (European Commission, 2007).

The OECD also recognises the importance of financial education in schools in the authoritative 2005 book, Improving Financial Literacy (OECD, 2005a). Indeed, the OECD has ambitiously stated that financial education should begin in primary schools (OECD, 2005b).

The Office for Standards in Education, Children's Services and Skills (Ofsted) has recently undertaken a study of best practice in relation to financial capability teaching within schools in the UK (Ofsted, 2008). The schools studied were selected because of information suggesting that they would provide evidence of good practice. Despite this, the inspectors noted shortcomings in terms of identifying and measuring outcomes. They comment in the report summary that 'only about a third of the schools had identified the learning outcomes they expected students to achieve… assessment of their progress was often weak…. Less than a quarter of the schools in the survey monitored or evaluated the impact of their provision'.

The FSA's own Financial Capability Strategy in schools is spearheaded by pfeg under the heading Learning Money Matters. The evaluation of this strategy is just beginning, following recognition of the importance of identifying outcomes. In the FSA's document *Creating a Step Change in Schools* it was stated that 'Most schools do not have an assessment policy and practices in place for personal finance education. It is important to know whether measures taken are effective and long-term, hence the need for good assessment methodology' (FSA, 2006).

It is not just in the UK where there is relatively little evidence about the impact of financial education in schools. Despite the widespread acceptance of the importance of introducing financial capability skills in schools, and the proliferation of schemes, there has been remarkably little evaluation of the impact of such schemes. There is, however, US data relating to the personal finance knowledge of young people thanks to the large-scale, biennial survey of high-school

students conducted on behalf of the Jump$tart Coalition. This is almost certainly the largest, repeated measure of financial skills amongst school age children in the world.

3.1.1. Methods of delivery and topics covered

Schools and education authorities tend to employ three main approaches to delivering financial capability skills:

- embed financial skills within various aspects of the core curriculum;
- teach stand-alone personal finance lessons; and
- utilise the services of external speakers and facilitators to deliver financial education within lessons such as citizenship or PSHE (personal, social and health education) in England.

All of these approaches rely both on having knowledgeable teachers or facilitators to deliver the lessons and good access to informative, age-appropriate resources and materials to support learning. They also need either enthusiasm from individual schools or commitment at a higher level (whether from the local authority or national education ministry) to ensure that financial education can gain a footing in an overloaded curriculum.

There appears to be little discussion or information within the literature about the specific personal finance topics taught in schools, but the indication is that savings and spending are popular topics (both aspects of **making ends meet**) and that financial knowledge is seen as important (**staying informed**). The reported short-term outcome measures tend to focus on overall test scores achieved by pupils, rather than being related to specific elements of financial capability. This reflects testing of other subjects within schools, where final grades are generally given more weight than capability at specific components of the test.

3.1.2. A review of the evidence

Analysing best practice

The Ofsted study discussed above gathered evidence from 18 secondary schools, two pupil referral units and two sixth form colleges during 2006/2007 (Ofsted, 2008). The sites were chosen because they were believed to be schools that might provide evidence 'of good practice in personal finance education'. Ofsted was created to inspect schools and other educational provision, and it is considered to be a trusted source of unbiased information about the quality of education provided within schools. It is therefore reassuring that it states that 'inspectors found examples of good and excellent practice… students had a sound grasp of financial terms, were able to talk knowledgeably about financial issues and they demonstrated that they could make well informed decisions',

although it should be remembered that these schools were already known for their achievements in this area. Of some concern, the report also notes that it was rare for students to have the full range of skills that the inspectors were looking for and they note that whilst this was sometimes because of the timing of their visit in relation to the course 'more often, those deficiencies were because schools had not established comprehensive programmes of personal financial education that clearly identified the full range of learning outcomes students were expected to achieve by the age of 16'. Unsurprisingly, students taking accredited courses were found to be most likely to have a breadth of understanding.

The Ofsted report indicates that provision of personal finance education through various different aspects of the school curriculum had a number of weaknesses even in schools identified as providing evidence of best practice (Ofsted, 2008). It reports that the cross-curriculum approach often resulted in a lack of coherent provision and a failure to identify expected outcomes for pupils in different year groups. It also failed to meet the needs of children from some socio-demographic backgrounds (something also found by Thomas, 2004). However, the report also identifies weaknesses in schools that introduced personal finance through mathematics. They note a lack of skills amongst mathematics teachers to discuss personal finance, the lack of focus on the financial aspects of the lessons, and interestingly, poor development of the mathematical skills, with an overemphasis on basic skills.

Ofsted also comments that 'training and development for non-specialist teachers involved in teaching personal finance education was rare' and that teachers were typically not aware of the resources available to support their teaching. Given the results of Thomas (2004) reported below this suggests that there has been little or no improvement in teachers' financial skills training since 2001, even in the best schools.

It concludes that **best practice depends on commitment to the subject from senior management, time available within the curriculum and teacher skills**. It also notes that it saw very effective use of resources and external agencies, which given its comment about teachers being typically unaware of resources available indicates that provision is there, but needs more careful signposting — something that the FSA is currently doing in conjunction with pfeg. However, it should be noted that the resources that 'the better schools' used 'included those produced for commercial purposes, such as advertisements for credit cards…'. This suggests that the removal of all branding and the provision of generic information may not be sufficient to provide real-world education and experience.

The provision of off-timetable personal finance events received a mixed evaluation. Pupils appear to have been actively engaged with the challenges and competitions used to stimulate learning, but schools failed to consolidate or evaluate learning. It seems from these findings that **more needs to**

be done to ensure that best educational practice is applied to good financial capability training.

Innovative Delivery

A minority of the evaluations have been designed to test particular delivery mechanisms, and so give detailed descriptions of the methods used. The three studies reviewed below were each testing innovative delivery methods.

The 2001 pfeg initiative **Excellence and Access** evaluated (what were then) innovative delivery methods for developing financial capability in a school setting, including using real life scenarios to illustrate ideas, and inviting external speakers into school (Thomas, 2004). The initiative was praised for reaching a large number of teachers and pupils (300 secondary schools, over 1,000 teachers and 150,000 pupils in the four years of the project) and raising the profile of personal finance education. However, it was found that many teachers were not particularly confident about their own ability to support personal finance education, and that there was an over-reliance on standard materials and activities that did not necessarily meet the needs of the diverse pupil population. Conversely, those teachers who had been able to introduce real life anecdotes found that this was a particularly good way of garnering the pupils' interest.

The evaluation of **Excellence and Access** identified both process findings and soft outcomes[2] using a mixture of quantitative and qualitative techniques (Thomas, 2004). The qualitative evidence of the impact of the Excellence and Access course on pupils leaves some cause for concern and the authors' conclusion reflects this:

"at this stage, therefore, we are not confident about the general effectiveness of pupils' personal finance learning".

The evidence indicated that pupils' knowledge varied widely, and seemed to be influenced far more by what they had learned from home (even if it was wrong) than anything they had been taught at school. The report also notes that a self-completion survey of 1,660 pupils showed that they had low confidence in their own financial knowledge after the course; and that this was most acute in year 7 (aged 11 to 12). However, confidence was tested using a quantitative survey instrument that asked questions such as 'how much do you know about…' which are very difficult to answer with any

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[2] Soft outcomes refers to those outcomes that cannot be directly measured (in comparison to hard outcomes such as GCSE results, or money saved). They are usually outcomes indicated by changes in confidence or attitudes rather than directly observed outcomes.

accuracy (a problem manifest in several of the evaluations we review). Furthermore, there was no prior test of confidence to ascertain whether the initiative may have helped to alter levels of confidence and no counterfactual to consider how pupils' confidence typically changes in the course of a school year.

Another novel delivery mechanism was tested in American middle schools in 2005 (Mandell, 2006b). The **National Association of Madison, Wisconsin**, provided funding for ten public middle schools in the Chicago area to host the live, improvised comic play Googleplex@school. This is a play focusing on a specific aspect of personal finance issues; **saving** (potentially related to **making ends meet** and **planning ahead** although with a particular focus on knowledge and thus **staying informed**). The evidence suggested that the delivery mechanism had some big advantages over other schemes. Its particular strength was that it required minimum commitment from schools – just one hour and the provision of a large auditorium[3].

Mandell's 2006 study of the impact of a comedy play on middle school pupils was exploratory in nature, and was not designed to be representative (Mandell, 2006b). However, he did conduct self-completion tests before and after the initiative with over 1,000 pupils (1,880 and 1,384 respectively) in order to identify changes that might be attributed to the learning experience[4]. Personal communications with Mandell indicate there was, at most, a month between the initial and follow-up survey. This may reassure us that any positive changes are not simply a result of the children maturing, although without a control group we cannot be certain.

Mandell found some indication that knowledge had increased; pupils answered more questions correctly after watching the play (average percentage of correct answers increased from 64.1 per cent to 68.9 per cent). Given the minimal commitment necessary for the initiative, even these small changes are encouraging. Furthermore, increases in learning were highest amongst the youngest pupils and those without savings accounts. There was also some evidence that behaviour had changed with the proportion of pupils having a savings account increasing from 51.4 per cent to 54.6 per cent. However, it is quite possible that this indicated that more pupils became aware of savings accounts they already held, and further findings indicated that the amount of money being saved did not increase.

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[3] Note that 'Licence 2 Skill' in the UK also uses a comedy performance to present personal finance lessons and promote further skills training within workplaces. We are not aware of an evaluation of this provision.

[4] Unfortunately, data protection prevented Mandell from collecting key identifiers to combine data on the same pupils across time, but he was able to make some assumptions to match 96 records.

The evaluation also identified that the **pupils learned the factual information but had more difficulty grasping the message of causal relationships**. This may not indicate a failure of the delivery; for example it could reflect their age, or the difficulty in capturing such knowledge in a survey instrument.

In his discussion Mandell notes that neuro-economists have suggested that savings behaviour is related to emotions. He tentatively suggests that if this type of delivery is used it may be preferable to introduce savings information through a tragedy rather than a comedy, as tragedy may have more emotional impact. In other articles he has written he stresses the importance of motivating young people to realise the relevance of personal finance in their lives, and the reality of life without a financial safety net (Mandell, 2007). He recommends doing this by providing graphic illustrations and real life examples, along with topics that the children can research for themselves.

In Scotland, the **Scottish Book Trust** has recently piloted a story-telling approach to financial literacy aimed at eight to 12 year olds. The approach takes four short stories written by leading children's authors and collated under the title **On The Money**. These are used to develop financial scenarios that can be discussed in lessons (Cochrane, 2006)[5]. There are several potential benefits of using stories to discuss such complex issues, including the ability to involve the audience/reader in the situation and the subsequent opportunity to get them to experience the consequences of decisions and behaviours without having to actually learn from first hand experience.

Whilst there has been no formal evaluation of the pilot study of **On The Money**, the qualitative feedback from teachers and pupils was documented and has been shared with us for this report (Cochrane, 2006). It is important to remember, however, that this does not constitute a full evaluation, and there is neither a before and after measure, not a counterfactual.

The feedback from teachers indicated that, in classroom discussion, pupils were identifying certain key messages from the short stories. These were 1) the difference between wants and needs, 2) the importance of saving and 3) the financial pressures on their parents - including how their "pester power" can add additional pressure. It is reasonable to assume that pester power in children is similar to the need for immediate consumption that some adults exhibit and as such fits within the **making ends meet** domain of financial capability (as do the other benefits noted). Such a desire can often lead to excessive spending, perhaps using unsecured credit.

Teachers felt that the pupils were using key financial terms appropriately after sharing the stories, including: interest, credit cards, bankruptcy, bank accounts, savings and tax. One teacher

[5] The book is currently being evaluated, but results are not yet available.

commented on the major shift in attitudes and understanding, which appears to suggest that the children gained more than just knowledge. Qualitative interviews with the pupils also identified ways in which they felt they had learned from the stories:

> *"The bit that really stood out was the bit that was saying you don't need money to have fun".*
>
> *"It's better to be a person who saves than a person who borrows."*

Given Mandell's comments about the emotional link to savings it is interesting that **On the Money** includes both sad stories and humour. It would be good to have some idea of which story the teachers felt had most impact in order to feed into this debate, and this is perhaps something that could be explored in a more formal evaluation.

Financial education curricula

There are several organisations that provide educational packages to schools. These are often free, and benefit from the specialist knowledge and resources available to large organisations.

The US National Endowment for Financial Education is one example of such a provider. It has created a **High School Financial Planning Program (HSFPP)** curriculum which is available for free to all US high schools (Danes, 2004). It has been evaluated on (at least) two occasions. The curriculum consists of a series of modules designed for use in high schools that can be taught in a flexible way, over a minimum of 10 hours. Topics covered include financial planning, careers, budgeting, savings and investments, credit and insurance. Teachers are provided with an instructor's manual, while pupils receive their own student guide.

The most recent evaluation of the HSFPP curriculum indicates that the vast majority of teachers (97 per cent) who used any of the materials available covered the budgeting element of the course, and a similar proportion covered financial planning (92 per cent) (most clearly related to **keeping track**). Insurance was the least used module (82 per cent). Teachers liked the course; 98 per cent said they would recommend it to a colleague, and one commented that it was the first time that students had wanted to keep a course book.

Teachers who requested materials from the HSFPP programme were asked to distribute a survey to their students on completion of the course to enable evaluation (Danes, 2004). The questions were designed to make students think about what they knew, then think back to what they had known before the beginning of the course (a 'post then pre' approach). The authors claim that the literature shows that this approach is suitable in cases where people do not know what they don't

know, and one of the papers they cite, explains that the benefit of such an approach is that 'The retrospective pretest at the end of the program is more accurate because it's answered in the same frame of reference as the posttest' (Rockwell and Kohn, 1989)[6]. A response rate of 42 per cent of teachers led to a sample of 5,329 students; 324 of whom were followed up in a second wave of questioning three months later[7].

The pre-course questions (asked at the end of the course) used five point Likert scales[8] and included 'I knew the difference between needs and wants' (used to test knowledge) and 'I believed the way I managed my money would affect my future' (a test of confidence). The questions appear to be specific to the curriculum, but did not necessarily relate to topics covered by individual teachers. Indeed the small variations in the decisions about what to teach could have provided a useful opportunity to understand more about the learning process and the breadth of change caused by various focused courses.

The findings from the evaluation of **HSFPP** show that students *believed* that they had learned something from the course and that, interestingly, those who were followed up seemed to learn even more (or become more confident about their knowledge) in the following three months. This may indicate that increasing knowledge/confidence levels were due to maturity rather than specific education, or perhaps that as awareness improved pupils started learning from other opportunities that presented themselves, such as news items or discussion with parents. Without a control group we cannot test these hypotheses.

Improvements in knowledge, behaviour and confidence were identified by the researchers. As an example of the magnitude of the self-reported changes, the post-course responses showed that 67 per cent of students strongly agreed that they knew the difference between wants and needs after the course whereas only 44 per cent felt strongly agreed that they knew this before. Similarly, 56 per cent strongly agreed that they way they managed their money would affect their future after the course, but only 33 per cent felt that they could have strongly agreed with the statement before taking the course.

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[6] We would not recommend this approach. We strongly believe that it is preferable to test knowledge directly rather than attempt to measure it through self-awareness questions. It should also be noted that there is apparently no recent literature on this approach, presumably indicating that it is no longer favoured by the majority of researchers.

[7] During the first survey students were asked to provide their contact details for a follow up survey, which not everyone did. In order to use the second survey results, parental consent forms were also needed, further reducing the sample size.

[8] Likert scales are often used in psychometric testing. A Likert item (a statement) is followed by a range of possible responses such as 1) agree strongly 2) agree 3) neither agree nor disagree 4) disagree 5) disagree strongly.

The researchers tested for significant differences in the mean replies of post- and pre-course test answers and found significant improvements in behaviour on all eight measures used. So while 14 per cent said they had almost never put money aside for needs/wants before the course — just six per cent said the same about their behaviour afterwards. The additional improvements identified three months later were statistically different from the levels identified in the post-course tests in all areas except additional learning about investments.

Students of the **HSFPP** were also asked about the most important action that they had taken as a result of the curriculum, and 47 per cent said they had opened a current account or savings account.

Teachers were also asked to assess students' knowledge before and after the **HSFPP** courses, although the authors do not state what information teachers used when making this assessment. It appears that these questions were also asked using the post and pre method described above. In all, 202 teachers provided assessments, and these indicated statistically significant improvements in observed student knowledge and abilities. Using a five point Likert scale, average scores given by teachers in the pre- assessment ranged from just 1.8 for setting realistic financial goals to 2.32 for understanding the between career/income relationship. The post- assessments increased considerably — ranging from a score of 3.54 on setting realistic financial goals to 3.90 on career/income relationship. However, it is clearly in the teachers' interest to claim an improvement in student ability following their own lessons.

It is unfortunate that the **HSFPP** evaluation did not include any objective tests of financial skills. The findings certainly indicate that students believed that they had learned something from the curriculum, and that their teachers would back up this perception. The large initial sample size gives us some confidence that the findings could be generalised, at least amongst those pupils with the types of teachers who opted in to the study. The fact that the small subset of pupils who took part in the follow up study continued to increase their self-belief over the next three months raises further questions, but at best could indicate longer term benefits from the HSFPP course.

Small scale initiatives

Evaluations of similar, but much smaller initiatives have been undertaken in Scotland and Australia. The Scottish study looked at the Greater Easterhouse Money Advice Project (GEMAP)[9], an initiative targeting young people within three secondary schools in The Greater Easterhouse district of Glasgow; (Scottish Executive, 2007). Financial education was delivered through PSE (personal and social education) using funding from the Scottish Executive, the Big Lottery and Glasgow City

[9] This scheme also targeted adults, but the majority of the participants were school children.

Council. The evaluators reported that all partners and participants "spoke very highly of the financial education programme staff". They looked at a subset of programme feedback forms and found that the lowest score given to the programme was 6/10.

Despite considerable efforts to collect data, the evaluation of GEMAP suffered a range of problems. In particular, much of the outcome evaluation relied on a poor self-completion research instrument (described as a quiz) which required respondents to recognise their own levels of knowledge, similar to that used by Thomas (2004); for example five point Likert scales were used with statements such as 'I know all about the costs of taking out a loan' and 'I know the difference between a credit card and debit card' (indicating a focus on **staying informed**). Furthermore, no systematic data was collected on issues of importance such as the number of participants who subsequently opened a bank account or became credit union members (**choosing products**) and whilst participants were tested before and after, no attempt was made to identify a control group. The evaluation was further weakened through circumstance, because the scheme was originally designed to meet the needs of adults and children, but in the event the participants were overwhelmingly school children. This meant that several of the targets were not met, including the proportion of participants developing a personal spending plan (**keeping track**) and conversely, insufficient focus was given to the outcomes of relevance to the school age participants.

The Australian **Youth Financial Literacy Trial Program** was piloted in a low income area amongst 12 to 13 year olds; a quarter of whom did not speak English at home. It was designed to deliver two modules that would resonate with many of today's teenagers; mobile phones and the responsible use of credit cards (Russell, et al., 2006b). The stated aims of the two modules were as follows:

By the end of the mobile phone lessons, students should be able to: describe some different mobile phone plans; explain some costly mobile phone habits; describe their personal mobile phone needs and justify a plan that best suits these; understand the importance of shopping around for a mobile phone and plan; understand what a mobile phone contract is and the implications of signing one; demonstrate an awareness of certain keywords that could warn them or prompt them to seek further information; suggest ways of handling a 'hard sell' situation; and explain some of the main features of a phone bill.

The credit card module is aimed at developing student awareness about the possible pitfalls, advantages and disadvantages around the use of credit cards. **By the end of the credit card module the students should be able to:** explain the difference between credit and debit cards; describe some advantages and disadvantages of using credit cards; justify when it may not be appropriate to use a credit card; describe some different community attitudes towards credit card use; identify important questions to ask when applying for a credit card; describe some of the different interest rates and charges that apply to credit cards; explain the problems

associated with paying the minimum repayment; describe some common features found on credit card statements; explain what a credit report is and what it means to 'default' on a loan; and suggest ways for staying out of trouble when using credit cards. (Russell, et al., 2006)

The evaluation made use of a before and after approach, with quantitative surveys administered by teachers (Russell, et al., 2006b). The pre-training questions asked about levels of numeracy and computer literacy, attitudes towards spending, saving and debt, what they expect to learn from the programme, and levels of usage of a range of financial products including current mobile phone and credit usage. Unfortunately it suffered from relatively small sample sizes (104 and 98 respectively), making it difficult to draw conclusions from. As it was only a pilot in a small number of schools, it is also impossible to generalise from the findings. The design of the evaluation did not allow for measurement of the change between the two surveys, but instead asked pupils whether they had gained knowledge and understanding[11]. It appears that the pupils appreciated the programme, that around 95 per cent felt that they had increased their knowledge of mobile phone plans and credit cards and that around 60 per cent found the lessons 'extremely useful'. Most agreed that they would like more of this type of education.

It is worth noting that the evaluation of this pilot collected large amounts of information of limited value, including a survey of the pupils' use of a range of credit facilities such as store cards and cheques, a question about bill payments, unexpected bank charges and handling problem debt which were entirely inappropriate given the age of the respondents. This highlights the importance of designing research tools that are appropriate in evaluating schemes aimed at young children who have limited real-life experience of personal finance. Otherwise resources are wasted, and the goodwill of respondents is very likely to be eroded.

Measuring outcomes without observing inputs

The academics studying the impact of financial education within schools do not always have information about the delivery methods or topics covered. The data from the **Jump$tart** surveys for example cover knowledge of topics such as insurance, tax, savings and investments as well as budgeting, income maximisation and loan repayments[12], but they do not provide process information (Mandell, 2006). It is interesting that the Jump$tart coalition (like pfeg in the UK) provides access to quality resources for schools to use, and yet it tests breadth of knowledge (a

[11] The survey instrument was difficult to interpret with questions relying on a scale that included the following two indistinguishable items: 'fairly competent' and 'quite good'.
[12] http://www.jumpstartcoalition.org/upload/2006SurveyWithAnswers.doc

measure related to **staying informed**) rather than focusing on the specific subjects that have been taught or the resources that the school had access to. The only information provided about the financial education received is the length of the course taken and whether it was related to personal finance or economics (see

Table 1).

Table 1 Financial education: Jump$tart 2006

Which of the following classes have you had in high school (circle **all** that apply)?	Percentage taking class	Financial literacy score (% correct answers)
An entire course in money management or personal finance.	**16.7**	**51.6**
A portion of a course where at least a week was focused on money management or personal finance.	**29.3**	**53.4**
An entire course in economics.	**38.1**	**53.2**
A portion of a course where at least a week was focused on economics.	**27.4**	**53.0**
A course in which we played a stock market game.	**27.7**	**55.0**

Data from (Mandell, 2006a)

Jump$tart have been undertaking regular surveys of school children since 1997, using self-completion, multiple-choice questions to test financial knowledge (Mandell, 2006a). The surveys are cross- sectional – there is no opportunity to measure changes at pupil level. The raw results of the survey are widely available but they do not include complex analysis. The researchers take a simple approach of calculating an overall score for each pupil based on the proportion of questions answered correctly and then looking at average scores across various characteristics. In particular, average scores are reported relating to the extent and type of financial education the pupil has received (see Table 1 above).

The Jump$tart surveys have consistently failed to identify significantly better scores amongst those pupils who have received financial education. In 2006 overall average scores were 52.4 whilst the average amongst those who had taken a full course in money management or personal finance was just 51.6. Scores were slightly higher for those that had taken a full economics course (53.2) and those who had played a stock market game (55.0), but they were also higher for those that had taken a course that touched on money management for a week (53.4) or touched on economics for a week (53.0). Considering that the average score across all pupils in 1997 had been 57.3 there is also no indication of general improvements in knowledge across cohorts.

The Jump$tart survey has a large sample size (in 2006 5,775 children from 305 schools were surveyed), and would lend itself to more detailed analysis. For example, the report concludes that it could be that neither economics nor personal finance classes cover the breadth of knowledge required to increase financial knowledge – with economics failing to teach about financial issues, and personal finance missing out on the contextual information. It is perfectly possible with the data available to consider whether pupils who took both economics and personal finance classes benefited from the additional breadth and, following discussion, we understand that this approach is being considered for the most recent analysis (in 2008).

In keeping with this broad outcome approach, a study of the subsequent impact of school level education on American adults identified only whether these adults had been schooled in a state which had **mandated financial education** (Bernheim, et al., 2000). Similarly, Mandell and Klein (2006) extended on this research by undertaking a study of high school graduates some years after they had graduated to identify the impact of a well respected **high school financial education**, but they do not go on to describe the education under scrutiny.

Bernheim, et al., 2000 looked at the impacts of financial education in later life using data from a **cross sectional household survey of adults** aged 30 to 49 to study differences in savings rates[13] in adulthood (Bernheim, et al., 2000). The results indicated that **mandated financial education strategies can take around 10 years to reach their full effect, but that the impact is noticeable**. For example, they found that the median wealth-to-earning ratio of those exposed to a mandate was 2.12, compared with 1.67 amongst those who were not, despite the fact that the first group was on average six years younger. They also found that the behaviour of parents was an important predictor of the impact of mandated financial education, although contrary to the early indications from the Excellence and Access scheme, it appears that mandated education in the US was able to able to help adults overcome the disadvantage associated with growing up with parents who had low levels of financial capability. Adults who grew up with 'frugal parents' had not learned

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[13] These were asked about the proportion of unspent take-home pay and voluntary deferrals, such as employee 401(k) contributions.

anything from being in an education system that taught financial education while other adults had; furthermore, the pattern was stronger for younger adults who had been through the system when the mandate had been in place for longer. These are interesting findings that lead us to **conclude that financial education is most important for those who are not be learning appropriate behaviour from their parents**. The findings are particularly powerful, given that states without mandates may well have been teaching financial education throughout this period – and so the difference is not necessarily simply one of education or no education, but is perhaps one of emphasis and delivery.

The small pilot study of 400 high school graduates by Mandell and Klein was not designed to be generalisable, and also had a poor response rate of slightly less than 20 per cent, despite the use of an incentive payment (Mandell and Klein, 2006). With a final sample of just 79 students — half (40) of whom had not taken the course, caution is necessary in interpreting the results. It is also important to note that this sample does not represent a single cohort — the sample included students who had graduated up to four years previously. However, the pilot used the same questionnaire as the Jump$tart survey, allowing some general comparisons to be made and analysis included statistical tests to identify significant associations. The course being investigated was optional, but the researchers found no evidence that students who went on to college were more likely to take it. Of course, this does not necessarily mean that there weren't important differences between the two groups, for example in terms of previous financial education experience or parental influence (something that both Thomas (2004) and Bernheim, et al. (2000) found to be important). Interestingly, average scores were higher for this group than those noted by Mandell amongst school pupils (68.7 per cent for those that hadn't done the additional course and 69.9 per cent for those who had), indicating a general improvement for these older students. However, as with the pupils, the difference between those who had, and hadn't taken a personal finance course was indiscernible. It is possible that this indicates that the Jump$tart survey instrument is too blunt a tool to pick up differences in financial knowledge across young cohorts, but it may also be the case that financial education is having no measurable effect over and above the learning that comes through age, experience and general education.

The pilot study also looked for evidence of changes in behaviour but did not find any conclusive evidence. For example, the results indicated that those who had attended a course were more likely than the control group to balance their cheque book, but also more likely to bounce cheques. In fact statistical tests confirmed that financial behaviour was not related to either the course or to additional life experience.

Considering these findings alongside the Jump$tart findings, we might conclude that financial education changes appears to change behaviour without increasing knowledge. However, we must remember that there are important differences in the two populations, most notably in terms of age, but also in terms of the overall education received and almost certainly given the different

cohorts, in terms of the financial security and behaviour of their own parents. Furthermore, the different methods used to study the potential changes make direct comparisons unwise. It is however worth noting that other researchers have suggested that financial knowledge *does* lead to changed behaviour, at least in adults (Courchane and Zorn, 2005). They undertook analysis on data relating to over 12,000 adults aged 20 to 40 with incomes under $75,000, collected from three separate sources. They conclude that knowledge is a key explanatory variable for behaviour, whilst behaviour, in turn, is a significant determinate of credit outcomes[14].

These studies have told us very little about the aspects of financial capability that are seen to be important. Without information about the actual materials used and subjects taught in schools we may only draw conclusions from the types of questions used to evaluate outcomes. It would appear that there is an emphasis on **keeping track** (for example by balancing a cheque book) and **staying informed**. However, this may reflect the ease with which such aspects can be measured, rather than the focus of particular programmes or policies. Lerman and Bell use the evaluation methods to draw conclusions about the materials used to teach financial education in schools: "some questions on financial literacy tests are flawed – a warning sign about the materials being taught" (Lerman and Bell, 2006)[15]. However, we know very little about the extent to which current evaluations seek to match outcome measures to inputs or objectives. We would agree with Lerman and Bell that a number of the questions used in evaluations seem either trivial or misleading, but we are not convinced that this necessarily means that the materials or topics being delivered are inappropriate. It does certainly remind us that the best evaluations are designed to reflect the expected outcomes based on relevant inputs.

[14]This is not a longitudinal study, and so we might question the direction of these effects. For example, they report that the analysis indicates that paying only the minimum balance on credit cards 'explains' knowledge, whereas we might assume that poor knowledge would result in paying only the minimum. However, the paper is cited as an indicator of the need for financial education: see Martin, M. (2007). A Literature Review on the Effectiveness of Financial Education, *Working paper series. The federal reserve bank of Richmond.*

15 They comment: 'Consider, for example, the following question taken from a poll commissioned by the National Council on Economic Education (2005). Respondents are asked to complete the sentence, "The existence of the stock market . . ." The correct answer from multiple choices is ". . . brings people together who want to buy stocks with people who want to sell stocks." This is either trivial or misleading.'

3.1.3. Applicability to FSA schools workstream

We have seen that the results of financial education in schools are difficult to measure, and that the benefits of such education may not manifest themselves for many years. This appears to confirm that financial education should *begin* in schools but it does not indicate that financial education in schools is sufficient to guarantee the knowledge necessary to make financial decisions in adulthood.

There is little evidence about the best delivery mechanism to use within schools, but it does appear that engaging delivery can improve behaviour and knowledge amongst young pupils (Cochrane, 2006; Mandell, 2006b). Conversely, it appears we should have some concerns about delivering financial skills through the maths curriculum, particularly without proper training for the staff involved (Ofsted, 2008). There has been a long debate about the extent to which maths and financial capability co-exist, but the findings of the Ofsted team suggest **that mathematics may not only be an inappropriate subject for delivering financial capability but that doing so may actually hinder mathematics teaching**, given that teachers were overly focused on basic skills.

Evaluations must take into account parental influences when considering the outcomes of child focused financial capability training. On the one hand parents may confound any attempt to increase knowledge (as found by Thomas, 2004) but, on the other hand, school level financial education appears to stop adults repeating some of the negative behavioural traits of their parents (Bernheim, et al., 2000). Additional understanding of these issues would be valuable.

It is equally important that evaluation design improves to enable us to disentangle the other confounding factors that make it so difficult to draw conclusions from the current studies. A consistent approach to identifying control groups, and taking before and after measurements is vital when considering the impact on young children.

It is clear that there are challenges facing the FSA in terms of evaluating the outcomes of financial capability strategies within schools. It appears from the Jump$tart surveys that **it is unlikely that knowledge will increase rapidly as a result of much of the personal finance education currently available within schools. Studies tend to indicate that there will be little or no discernable increase in knowledge amongst any but the youngest pupils.** In order to capture any improvements, survey instruments will need careful design that reflects the content of the financial education on offer.

The design of an evaluation tool for use with school children is particularly important. The evaluations discussed in this report rely heavily on survey questions that ask children to evaluate their own learning. This technique is unlikely to lead to reliable results given that children will

have little or no practical experience to help them judge their own levels of knowledge. The Jump$tart questionnaire appears to be a far more sensible way of capturing knowledge, asking direct questions and then identifying correct responses. However, the actual questions covered would not be appropriate to children in the UK, and some of the questions seem unnecessarily wordy, which may prevent those with lower levels of literacy and speakers of other languages from grasping the point being tested[16]. For example, in the 2006 survey, question 25 reads as follows:

Mark has a good job on the production line of a factory in his home town. During the past year or two, the state in which Mark lives has been raising taxes on its businesses to the point where they are much higher than in neighbouring states. What effect is this likely to have on Mark's job?

a) Mark's company may consider moving to a lower-tax state, threatening Mark's job.

b) He is likely to get a large raise to offset the effect of higher taxes.

c) Higher business taxes will cause more businesses to move into Mark's state, raising wages.

d) Higher business taxes can't have any effect on Mark's job.

Mandell, 2006a)

It is also important to consider whether UK schemes should be evaluated in terms of the five aspects of financial capability. The financial capability measures in the UK take into account behaviour and attitudes as well as knowledge. If we anticipate that education may first impact on attitudes then it would be worth considering the possible impact of such changes on (young) adult levels of financial capability using the baseline survey for guidance.

We do not expect to be able to identify large-scale financial behaviour change amongst children, since most children have little or no personal experience of financial issues. However, as they reach their teenage years they do need to know how to choose and manage financial products and so it is important to understand what might impact on their behaviour. The evidence that has been summarised indicates that the financial behaviour of high school graduates was related to neither financial education nor to additional life experience (Mandell and Klein, 2006). There appears to be almost no evidence on the impact of financial education on the socialisation of young people to financial services, and little evidence on the longer term behavioural impact (Bernheim, et al., 2000).

There is some indication from the literature that having the option of financial education may not be enough. It may be necessary to make financial education compulsory. Bernheim et al (2000)

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[16] The survey was designed by a team of educators but it is not clear what level of English language skills/English literacy was expected.

appear to show convincingly that mandated education has a significant impact on behaviour, even where financial education has been available previously. As an alternative to making financial education compulsory it may be worth investigating whether lessons that are an integral part of a child's education leading to recognised qualifications have a greater impact than less formal types of education as suggested by Ofsted (2008).

3.2. Improving financial capability amongst young adults

The term 'young adults' relates to a loosely defined group of young people under the age of about 25, but is most often used to identify those still in full time education. In the UK, this tends to mean those in school sixth forms or further education colleges and higher education students. However, not all young people continue in education beyond 16. Some move into work, or work-based training, whilst others spend a period of time outside of education, employment or training, a group that is often referred to as NEET[17]. We can therefore identify three separate groups of young people; those in education or training, those in work and those who are classified as NEET[18].

The **Schools** strategy and **Workplace** strategy will meet the needs of young adults who are either continuing education within school sixth forms or moving into employment, but separate strategies are needed to meet the needs of the others. However, it is clear that these remaining young adults are a disparate group, with varying financial needs. For example those in further education and NEETs have far lower levels of access to loans and credit facilities than students in higher education. Furthermore, whilst those in further education are likely to live with family members, many NEET young people and higher education students are beginning to live independently.

In the UK, the FSA has recognised that all young adults have particular needs that can be addressed through financial capability training. Similar discussions do not appear to be happening in other countries, and so while students do tend to get support, other groups of young people appear to be largely overlooked. This means that there is very little international literature to draw on to inform the FSA strategy.

[17] Not in Education Employment or Training.
[18] It should be remembered that young people can, and do, move from one group to the other.

NEET strategies

In 2004 the FSA funded a pilot project with Fairbridge West, a charity, looking at ways of delivering financial education to NEET young adults. This pilot was relatively short and worked with fewer than 50 young people[19] (Atkinson, 2005). It looked at delivering financial information in a variety of ways. Staff embedded aspects of personal finance into some of the courses already on offer. They also created a specific project aimed at delivering financial education to those who would not necessarily choose to take part by including aspects of learning within a film- making project. Fairbridge has a great deal of experience of working with challenging young people but the staff had little or no experience of talking to the young people about their finances prior to the pilot study and most had low levels of financial confidence (reflecting the findings of Thomas, 2004 and Ofsted, 2008 in relation to school teachers). Despite this, it was found that the young people trusted the Fairbridge staff and that this was an essential component in the successful delivery of financial skills, indicating that there would be value in training such staff to deliver financial skills to this group.

Fairbridge introduced a range of topics of relevance to NEET young adults, but with a focus on spending wisely, budgeting, borrowing and dealing with problem debt (**making ends meet** and **keeping track**). The topics reflected both the circumstances that the young people were in, and the skills of the partner organisations supporting the pilot (which included a credit union and a debt advice agency).

The evaluation of the Fairbridge pilot drew on qualitative interviews with young people, staff and partner organisations before and after the initiative, along with frequent observations of the young people and staff at work (Atkinson, 2005). One of the main focuses was on the process outcomes, but soft outcomes were also identified. The interviews showed that young people were more likely to remember those aspects of the financial education that had been repeated, indicating that it is better to go over a few core concepts with them as often as possible, rather than try to cover too much information.

The pilot was held over a six-month period, but most of the young people interviewed before the introduction of the initiative had moved on in that time. There was no opportunity to conduct a rigorous before and after test or use a control group in this study and so it was impossible to identify significant behaviour changes. However, the results of qualitative interviews suggested that some young people were starting to take more control of their expenditure, at least when shopping for food. The stand-alone film course had also encouraged young people who might not

[19] It is difficult to be sure how many young people took part in this pilot as the nature of the group means that they are transient. Indeed the aim of charities like Fairbridge is to support young people to move on into some kind of training or employment.

otherwise engage with financial issues to research for story lines related to personal finances. Unfortunately the film course, which was particularly labour intensive for staff, had just six participants — making it unlikely that such a strategy could be rolled out nationally.

As a result of the Fairbridge pilot, a guidebook and training sessions were developed to be used with other youth workers supporting NEETs as part of the FSA financial capability strategy. These were subsequently evaluated along with an alternative training session developed by Citizens Advice (ECOTEC, 2007). Initially the training sessions were offered separately, but they are now combined into one day workshop. The evaluation of this training included 10 strategic interviews with FSA staff training providers and youth work team managers; feedback from 46 participants from 15 organisations at seven focus groups - some working one-to-one with young people and others with groups.

It is important to learn as much as possible about the best ways to train frontline workers to deliver financial capability skills, since we know that many of them lack confidence and expertise in this area (Atkinson, 2005; Ofsted, 2008). Given this, it is interesting that youth workers preferred the training method used by the Fairbridge trainers, but appear to have **retained less of the information** covered in those sessions than in sessions facilitated by Citizens Advice (ECOTEC, 2007). There were also some concerns that the financial information provided by Fairbridge was too generic and that the Fairbridge approach was good at developing delivery skills amongst youth professionals but not at improving their financial capability.

The participants felt that a combination of Fairbridge and Citizen's Advice approaches would increase the effectiveness, and the research team report that such a combination did result in very positive feedback. Other findings from the research indicate that more experienced participants felt that the toolkit provided by Fairbridge would have met their needs without the training course. It would appear from these findings that **there is a need to tailor training to the needs and preferred learning styles of different youth workers**, with delivery methods including active learning styles (such as games and creative activities), detailed knowledge provision (in a more formal classroom setting) and written guidance that can be referred to as necessary.

Financial capability and Further Education

In the UK, some sixth form and further education students have access to the *ifs* School of Finance Certificate in Financial Studies (Davis, et al., Undated). The Ofsted report suggests that there is a benefit from having an accredited course such as this but commenting that this reflects both the coherent nature of provision and the number of hours devoted to learning this way (Ofsted, 2008).

The University of Manchester has evaluated the impact of this course on students using

quantitative and qualitative methods. Unfortunately, their study has no control group, making it very difficult to draw conclusions from. They suggest that there were significant improvements in students 'financial understanding' and in the way they valued money. A follow-up survey six months after the end of the course also indicated that over 90 per cent of students continued to believe that the course helped in their understanding of money issues.

Financial capability at university

The FSA's Young Adults workstream also includes the Money Doctors project, first piloted by Roehampton University in 2005. The initial stages of this project aimed to increase the provision of financial capability information within universities, and to design a toolkit that could be used in other institutions, but the unique factor in the scheme is the development of student money advisers, or Money Doctors.

The impact of Money Doctors on staff and universities was evaluated in 2007. Data was collected from student money advice staff at the end of the first and second semester, and case studies were produced to illustrate the impact of the project. However, the most recent evaluation reports only raw numbers taking part, it does not give any indication of the proportions of students who participated, or the outcomes for those students (FSA internal document). The intention is to conduct an additional evaluation in the 2007/2008 academic year to evaluate more fully. Ideally, this would include sufficient numbers to conduct rigorous analysis (taking into account the type of outcome being investigated and the aims of the project), and encourage retention, perhaps through some kind of incentive mechanism.

There has been a fairly recent evaluation of a financial skills course run at the University of Wisconsin-Madison (Gutter and Renner, 2006; Gutter and Renner, 2007). The course is, understandably, much broader than anything that could be achieved with vulnerable young people who have dropped out of education completely (as discussed above). Designed to be integrated within their academic studies, it runs over 14 sessions and includes information on budgeting through the academic year, a range of issues around accessing and managing credit and credit scores and saving and investment (Gutter and Renner, 2006). It also covers issues such as understanding employer benefits, managing risk, choosing insurance polices and retirement planning (suggesting that it touches on **all five aspects of financial capability**)[20].

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[20] A personal finance course, You and Your Money, is available through the Open University, based in the UK. The Open University student body has a much broader age range than a traditional university, but readers may be interested to compare the content of this course with the Wisconsin-Madison offering. See http://www3.open.ac.uk/courses/bin/p12.dll?C01DB123 for further information.

The authors of the evaluation note that 'most evaluations of these [personal finance] courses are formative in nature relating to class logistics, rather than measuring impact on behavior. This project was designed to fill this gap and to inform future efforts to improve college students' financial behaviors'. The stated objectives of the project were:

1. Create a series of integrated course modules, including lecture materials, to meet specific learning objectives.
2. Establish survey method and create instruments to measure: student demographics; elements of financial socialisation; financial resources; financial behaviours (credit, savings, insurance, financial aid); attitudes and beliefs about financial management.
3. Pilot the course to a large enough class to allow for longitudinal evaluation: pre-class, post-class, and nine months post-class collection.
4. Determine whether the course as a whole or a specific element of the course has contributed to changes in beliefs, attitudes, and/or behaviours among participants.

(Gutter and Renner, 2007).

Despite these objectives, with just 77 students completing all three surveys in the evaluation, it is important to see the findings as indicative rather than conclusive. The majority of the students (75 per cent) claimed not to have received any personal finance education at school, confirming the findings of the most recent Jump$tart survey (see

Table 1 above). The course is compulsory for some students and elective for others, although the researchers did not look for variations in outcomes between these two groups. A mixed delivery approach was employed, with traditional seminars, reading lists and homework being used alongside class activities and podcasts. Interestingly, innovation did not seem to be particularly welcomed — while almost all students felt that the homework had been useful, the podcast scored an average of just one on a five point scale (making it 'not at all useful'). This illustrates the difficulty of getting it right with young people.

The evaluation apparently benefited from an above-average response rate to the second, optional online survey of 60 per cent, although it is not clear how this was achieved, and it should be remembered that the final sample size was still small (77) (Gutter and Renner, 2006).

Credit use was not improved by the course. Nine months after the class, there was an increase in the proportions of participants: holding a credit card; at the limit of their card; carrying a revolving balance and not paying balances in full. This almost certainly reflects normal student behaviour and reminds us of the importance of a control group.

More students were showing financially capable **money management** behaviour with an increase

from 37 per cent before the class to 42 per cent after the class using a budget. The proportion also stayed constant at the nine month follow-up. The interim report suggests that there were also signs that the course had improved the extent to which the students were **planning ahead** with students becoming aware of the need for renter's insurance and health insurance. Furthermore six per cent of those followed up after the course having changed from having no intention to opening a retirement account to actually opening one, and an additional one per cent who had indicated that it was something they were considering doing before the course, actually having done so by the follow up survey. This aspect of the course was not discussed in the final report, so we do not know if the outcomes remained longer term. However, the report does note that students were less likely to *save* nine months later than they had been before the course.

There were other indications that attitudes had changed, even when behaviour remained the same. For example the proportion who reported that they were 'planning' to keep a spending diary increased from 14 to 31 between the pre- and post-tests, but there was no change in the numbers actually doing so (13 per cent post course, 14 per cent nine months later). This is particularly interesting since this aspect of the course received an average score of 4 out of a possible 5 by the students, indicating that they found it 'somewhat useful'.

It is generally assumed that young people will be confident accessing information online and it is perhaps surprising that there are not more evaluations of online initiatives aimed at them. However, whilst there appears to be little written about the impact of general initiatives delivered online, there is one substantial evaluation reporting on several initiatives designed to test **the benefits of providing online education to student credit-card holders** (Gartner and Todd, 2005).

The websites under evaluation by Gartner and Todd (2005) are designed to make credit card users aware of their own responsibilities as card holders, help them to understand common definitions, and teach them how to build a good credit history. The programme also identifies warning signs that a credit history may be deteriorating and gives information about who to contact if it is. One of the studies of students who had recently taken out a Wells Fargo credit card showed that the 5,179 students who completed the online course were not representative of new student card holders. They were more financially literate, had higher credit scores, and were more likely to be on four year courses. However, the evaluators considered the response rate of almost seven per cent to be a 'substantial response to an inexpensive mailer' (Gartner and Todd, 2005).

Gartner and Todd (2005) used randomised tests which were overseen by the Industry Practices Committee (made up of industry representatives and counsellors). They looked at the outcomes of four initiatives which focused on students; three undertaken by US banks, and one from Wells Fargo. The numbers of students approached for each of these studies were far larger than would have been possible in the other evaluations discussed. For example, in 2004 Wells Fargo used direct mailing to contact 78,000 students who had just received a new credit card inviting

them to log onto an educational website (VISA's Practical Money Skills for Life curriculum) and enter a unique identifier in return for a 60 minute phone card. A control group of 3,000 students was identified, but not contacted with the invitation. Those who logged on took a financial literacy test before completing the curriculum, to provide the researchers with before and after data, but the only data available from the control group related to their payment behaviour and administrative records.

All four of the studies of student behaviour reported in Gartner and Todd looked for robust differences between the control groups and the 'treatment' groups, but in the Wells Fargo study relatively few students took up the offer of the online course and the differences in outcomes between the control group and the *whole* treatment group were generally not statistically significant. However, they also comment on the differences between those who *opted in* and the control group. Students who opted in were one third less likely to have been late making a payment or to have exceeded their credit limit, and 57 per cent less likely to have been 60 days delinquent after taking the online course. The authors note that test scores also increased amongst those who opted in, although they do not give details. The overall impact was undoubtedly positive for participants, though not necessarily for the short term profits of the credit card industry. Participants were paying around a half as much in fees, although some of this was recouped by the card providers because the students were making a third more merchandise purchases, and accounts were 66 per cent less likely to be 'charged off'.

The other three studies of students reported in Gartner and Todd (2005) looked at students with particular credit scores, including those who were close to delinquency, and those who had recently become delinquent. Similar approaches to those discussed above were used to collecting and analysing data, but the students were contacted in different ways. The general conclusion of the various studies appears to be that direct mailing was more effective than telephone contact at encouraging students to take the online course, and that the practice of calling those about to be delinquent and extracting a promise to pay had a significant impact on payments (perhaps more so than the web based training). The study with students who had already fallen behind with payments concluded tentatively that online education may not be effective with this group, indicating the important distinction between preventative and curative education and information.

There is other, less complete information available about initiatives aimed at students and school leavers. In America, the credit card company **VISA** has made available online the results of a financial education initiative that was piloted in 2004 aimed at American High School Seniors (typically aged 17 to 18) at the end of their school year. This scheme was not described in detail on the information provided but appears to have been run outside school as a three-hour workshop (Visa, 2005).

The VISA study used a longitudinal approach to evaluation, surveying participants and a control

group before the course began, and surveying participants again three months later (Visa, 2005). They subsequently surveyed both participants and the control group again six months later and finally seven months after they the training had been completed. All follow-up surveys were conducted online. The report does not provide detail of data collection or response and attrition rates, but indicates that by the final wave of interviews data was available for 100 control group members and 160 participants, suggesting attrition of 40 per cent between the second and fourth survey for participants (which is not an unreasonable amount).

We should not read too much into the significance of the VISA results without knowing more about the sample, but their research does suggest that the three hour course had some impact on knowledge amongst those participants who agreed to take part in the survey. For example, of 262 participants who completed two financial knowledge tests, average scores increased from 67 per cent pre-course to 81 per cent at the first follow-up interview. However, unfortunately they do not provide test results for the control group and so this apparent increase may be due to some other factor. Furthermore, we do not know whether the test reflected the information provided at the seminars.

Despite the fact that the evaluation report suggests that the students were contacted then split into control and treatment groups, the two groups appear to vary in important ways; for example almost a quarter of the control group were already budgeting (24 per cent) compared with just 10 per cent of the participants. However, by the first follow up, both groups were far more likely to budget, and the gap had decreased (65 per cent of the control and 62 per cent of participants claimed they were budgeting). It seems reasonable to assume from this that the research was conducted with new students who learned to budget as they became more familiar with managing their own money. Furthermore, it is reasonable to assume that the control group may have learned from the treatment group (thus 'contaminating' the control group findings). There were noticeable fluctuations amongst the control group: by the final survey 65 per cent of the participants said they were budgeting, compared with only 55 per cent of the control group[21].

Whilst the control group were more likely to budget, they were also *less* likely to have access to a credit card before the course began (17 per cent compared with 24 per cent). However, at the final follow-up 61 per cent of the control group had access compared with half (50 per cent) of the participants, perhaps indicating that the participants were using their budgeting skills more effectively. Interestingly, in most other areas tested, both the participants and the control group

[21] We assume that this control group was made up of the same people; but if this is not the case, the fluctuations will almost certainly have been caused by a changing sample. Even if the control group is made up of the same people each time the fluctuations might reflect the way in which the questions were asked, the timing of the questions, or some other research effect rather than actual changes in behaviour.

changed in similar ways. This included a reduction in the number of times they bought something they didn't need. Overall, this study appears to show that we might expect large changes in student behaviour and that, in magnitude at least, these far outweigh any changes caused by a three hour seminar, even when the facilitators are of a high calibre. They also remind us of the importance of evaluation design, ensuring that the control group has the same characteristics as the treatment group and making sure that the control group will not learn from the treatment group.

A similar group of young people is targeted with financial education in the UK through a different delivery mechanism: **university applicants in the UK** receive information about managing their personal finances along with their university application forms, in the form of a **Moneymanual**. The Moneymanual information covers issues of direct relevance to students: tuition fees, student loans, student grants, budgeting, money worries and savings. The funders and developers of this information (Cattles plc and Credit Action respectively) have appointed independent evaluators to better understand the impacts of this venture, but the evaluation has only just started and so only baseline data is available (PCP Market Research Consultants, 2007). Unfortunately this means we do not yet have any results to draw on. The evaluation intends to follow an anonymous sample of over 3,000 students. The students have been recruited for a longitudinal study, due to end in 2011. The first survey had covered a range of general issues of relevance to new students, including concerns about loneliness and workload as well as managing finances and accessing student loans. It is not known what outcomes the evaluation team are measuring, or how much influence they expect the manual to have, but as all students have received the manual there is no opportunity to conduct a random assignment or to identify a control group which means it will be difficult to isolate any impact. However, the sample size is sufficiently large to allow analysis across socio-demographics and student experiences to see how personal finance outcomes vary.

3.2.1. Applicability to FSA young adults workstream

The Fairbridge pilot was undertaken as part of the pilot phase of the FSA strategy. It highlighted several issues in relation to evaluating such schemes. For example, the Fairbridge staff needed financial capability training before the project could get off the ground, which meant that there was actually only a very small window for delivering and evaluating the project. It would have been preferable to set up the evaluation from the beginning but to allow the project time to bed in before attempting to measure outcomes. Furthermore, it can be difficult to follow up young people during such transitory periods in their lives, which makes it difficult to identify impact. Finally, there was no time to explore the issues of relevance to the target group before starting the evaluation, and so the baseline was in fact more of an exploratory fact-finding exercise.

The FSA should note that some aspects of financial capability appeared to be getting worse amongst the students at the University of Wisconsin-Madison when looking at the pre- and post- tests (Gutter

and Renner, 2006). For example more students had reached their maximum balance on their credit card, the average balance was higher, and insurance rates were varying. However, this additional borrowing was a normal part of student life, and does not indicate a failure of the programme, only a reminder that it is important to consider confounding factors and use a control group wherever possible. The changes in proportions holding insurance are interesting in that they appear to reflect the fact that students became more aware of exactly what insurance they had, and what they needed (i.e. they stopped being passive consumers).

It is reassuring that the American studies showed that some students have an appetite for learning how to manage their finances, and that positive results are possible. However, the Wisconsin-Madison students were almost all social scientists and around two thirds were female. Furthermore, the course was intensive, involving 14 taught modules and homework assignments. It would be good to have further information about how students with different academic interests and possibly from different demographics would relate to a similar course, and also to know more about the length of time necessary to deliver key messages. The online courses evaluated by Gartner and Todd (2005) indicate a small benefit from an initiative that required relatively little investment in time from participants. It would be interesting to know more about how the results varied by student characteristics.

Considering the relatively small investment required in providing online education compared with intensive classroom delivery, it is interesting that students appeared to behave more capably after taking the online training (Gartner and Todd, 2005). However, despite the apparently robust analysis it is difficult to know how far we can generalise these findings, as the students who opted in were not representative of all student card holders, much less of all young people. It is also important to remember that the course content is focused exclusively on one aspect of financial behaviour, whilst young people in general need to develop their skills in all aspects of financial capability. However, it is certainly interesting to discover that a sizeable proportion of students were willing to engage with a financial education initiative after receiving direct mail.

The main point of note from the **VISA** study of the impact of a three hour seminar **is the importance of a control group** (Visa, 2005). The extent to which the control group changed their behaviour during the time of the longitudinal study is very interesting. It shows just how easy it would have been to attribute very large changes in behaviour (such as starting to budget) to the seminar when in fact many of the changes would perhaps have happened anyway.

3.3. Workplace financial capability

Strategies to improve levels of financial capability generally, and planning ahead in particular, often turn to the workplace. They typically aim to encourage workers to contribute to savings and pensions in preparation for the future (**planning ahead**), and to provide them with skills to make the most of their current income (**making ends meet**). Other issues covered by workplace initiatives include identity theft and home purchase (**choosing products**).

Delivery mechanisms used to provide financial education in the workplace include one-off benefits fairs (Duflo and Saez, 2003) and seminars combined with one-to-one advice (Kim, 2000).

There have been a number of evaluations of workplace schemes, primarily undertaken in the USA. As with the evaluations of initiatives aimed a school children reported above, some workplace evaluations focus on particular schemes, whilst others look at larger datasets to identify differences across groups of people who received financial training, and control groups who did not.

<u>The 'benefits fair' approach</u>

Employees of an (unidentified) university studied by Duflo and Saez were invited to an annual benefits fair, held in a hotel over two days. They were usually sent an invitation and information pack in advance and encouraged to visit the fair to collect information about work related benefits including insurance and pension. **The main goal of the fair was to raise enrolment of Tax Deferred Account** (TDA), from around 35 per cent at the time of the evaluation[22].

The study focused on non-faculty staff and had an interesting experimental design. The researchers identified staff who did not have a TDA and constructed a random sample of people to contact from within 220 departments and a suitable control group of 110 other departments using administrative data. Potential participants were encouraged to attend the fair with the promise of a $20 payment providing they registered their name on arrival. Those who attended but didn't get the incentive payment didn't have to register but they were given raffle tickets and asked to write their department on the stub, so that the researchers could collate aggregate data on them as a control group.

The monetary incentive to encourage participation was found to be an affective recruitment strategy, increasing attendance from below five per cent in control group departments to 28 per cent amongst individuals who had received the incentive. Interestingly, attendance also increased amongst those who did not receive the incentive themselves, but worked in a department where some people did receive the incentive, showing a network affect.

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[22] The university also had a traditional, mandatory pension scheme.

Employees who received an incentive payment were more satisfied with the fair, and were less likely than other attendees to say that they felt they were short of information, even though their knowledge had not increased.

The experiment was successful in increasing TDA enrolment amongst departments where some staff had been incentivised to take part in the fair, but only by a very small amount. After eleven months TDA enrolment increased by 1.25 percentage points, and in total the experiment induced an additional 50 employees to contribute. The researchers conclude that at an average annual contribution of $3,500 this related to an additional investment of $175,000 for a total cost of $12,000 in incentives. Furthermore, it is reasonable to assume that these payments will continue beyond the first year.

One-off workshops

In 2000, Kim reported the findings of an evaluation of a series of **one-off workshops held by an American insurance company** with over 400 employees (Kim, 2000). The workshops lasted one and a half hours each and covered retirement planning, investing, asset allocation and risk management. Participants at any of the workshops became entitled to a free 30 minute one-to-one support session.

Kim used a 'before and after' approach to data collection. She had a useable response rate of 55 per cent to her pre-course assessment and 40 per cent responded to the test questionnaire three months later. Personal communication with Kim indicates that 103 out of 189 respondents to the second survey attended the workshop (and that those who didn't were not asked the follow-up questions).

Like Garman et al (2007) discussed below, Kim found that the main reason for non-attendance at a workshop was a conflict of time. Interestingly, workers were asked to give the workshop a monetary value, and 70 per cent gave it a value of less than $100. Confirming the findings reported by Garman, Young and Love (2000), the workshop seemed to have an impact on retention, with more than a quarter of participants stating that it was an important factor in staying with their current employer.

The survey instrument used by Kim does not appear to have had any cognitive testing, and some question wording was consequently changed for the second questionnaire. This may 'explain' some of the apparent variations in outcomes and indicates that the findings discussed below must be treated with caution. However, Kim found very little change at all: Of 40 variables on financial attitudes, knowledge, behaviours, well being and work outcomes, only one had a significant, positive outcome: the amount of saving and investing beyond 401(k). The report concludes

that 'This [financial] education was not enough to make significant changes in worker's personal finances and work outcomes'.

It should be noted that there were confounding issues that could not be addressed by the study – in particular the fact that employees had been offered financial education four years previously and they were also offered limited information and education at other times. Furthermore, the three months between the course and follow up was insufficient to identify changes to 401(k) participation as employees could only do this once a year, and this fell outside the period of the evaluation.

The **FSA Make the Most of Your Money workplace strategy** combines workshops run by external facilitators with printed materials and CD ROMs to give workers comprehensive personal finance guidance. Topics covered include pensions; comparison shopping; budgeting; mortgages; savings; reviewing finances; planning ahead; insurance; and signposting to other information and websites. During the recent evaluation period 1,564 employees attended workshops and almost 77,000 booklets were distributed (IFF, 2007b). Of all the attendees, over a third (37 per cent) reported that attendance had been compulsory. Reinforcing the findings of Garman et al. (2000) 91 per cent felt that the workshop had been a valuable employee benefit, and 62 per cent felt it was either 'useful' or 'very useful'.

The FSA workplace strategy was evaluated using a range of methods, including 'mystery shopping' type exercises; follow-up telephone interviews, and feedback forms (IFF, 2007b). Follow-up interviews were conducted with 170 employees between six and eight weeks after a seminar and most of the participants (1,552) completed feedback forms. Unfortunately the research team had little success at collecting feedback from those who had only received the booklets; just 101 employees returned feedback forms (equivalent to less than one per cent of the booklets sent out).

The majority of participants (86 per cent) felt that they had received some benefit from the **Make the Most of Your Money** course. In particular employees reported that the workplace seminar had increased their confidence (66 per cent), and knowledge (75 per cent). However, such self-reported increases do not help us to gain any understanding of what was achieved, or how.

Similarly, there was some indication that money management had improved (59 per cent said they made more effort to plan their spending and saving), and improvements were also noted in the other financial capability domains (87 per cent felt they would follow up useful contacts identified, 60 per cent said they would make arrangements for retirement and 50 per cent claimed that they would make arrangements to keep up with their bills and credit commitments). It is not clear from the evaluation report whether these are new intentions, or things that the employees would have been doing anyway.

Integral financial education provision

A number of the workplace schemes evaluated provide financial education that is recurring, and goes far beyond encouraging saving for retirement. For example Garman, Young and Love have reported the outcomes of a scheme run by Decker and Associates for Schlumberger Ltd that includes **information about company benefits, student loans and tax planning and also counsels staff in relation to job loss and financial shocks** caused by medical problems, divorce, or death (Garman, et al., 2000). Staff have access to the support at various points in their career, with structured delivery before they are hired (for college graduates who are prospective employees), at a retention workshop in the first five years of employment and free financial planning software to encourage continued action. They also provide ongoing support and training and specific support during relocation. The authors note that Schlumberger Ltd has found that **providing ongoing support in personal finance issues improves recruitment and retention**, and in the business sector led to a 50 per cent reduction in attrition amongst software developers, along with retention of 'key executives' suggesting a benefit to firms from running such schemes[23].

Garman, Young and Love (2000) do not discuss their methods of evaluation, meaning that caution is necessary when considering more specific outcomes. We must assume that they use administrative records to measure success. They comment that the provision of financial education leads to increased enrolment in 401(k) pension accounts, stock purchase plans and disability income plans, although they do not specify the magnitude of the increase or whether this is compared to a baseline or another firm/industry.

In another study led by Garman, researchers discuss a scheme offered by EDSA Group in a large US chemical production company (Garman, et al., 1999). **EDSA offered three, optional workshops** on 1) financial planning, 2) retirement (for those three to 15 years away from their own retirement) and 3) 401(k) pension accounts[24]. There was also one-to-one counselling available at work for those who attended at least one course. Participants could choose how many workshops to attend, and 57 per cent only attended one.

Garman *et al* (1999) collected data from course participants and non-participants (used as a control group) via a self-completion postal survey, and achieved a response rate of 60 per cent. They

[23] This could also be seen as a (perhaps unintended) positive outcome for individuals
[24]Definition from IRS website accessed 27/03/08 (http://www.irs.gov/taxtopics/tc424.html) *A section 401(k) plan is a type of tax-qualified deferred compensation plan in which an employee can elect to have the employer contribute a portion of his or her cash wages to the plan on a pre-tax basis.*

analysed the outcomes for 100 course participants alongside those from 78 non-participants, and compared the two groups in terms of key characteristics.

The formative part of the evaluation discovered that 51 per cent of non-participants did not participate in the workshops because of a timing conflict, 10 per cent felt they knew enough already and 10 per cent were not interested (other reasons were not reported). Of all those surveyed, 80 per cent said they wanted more workshops, particularly on retirement planning. The paper also describes the differences in characteristics of those who participated and those who did not. Participants were typically older, married and had been employed by the company for longer. There were no major differences between the participants and control group in terms of income, education, household size or ethnicity.

The evaluation showed that participants paid more into their pensions than the control group, but the authors do not say whether this could be related to the older profile of the participant group. Participants were also statistically more likely to have saved and less likely to have reached their credit card limit or faced having to cut their living expenses. Participants reported that since the seminar they had improved their financial behaviour in a number of ways, including diversifying investments or become more aggressive with their investments (70 per cent), increased their contribution into their employer's 401(k) plan (45 per cent) and made better financial decisions (75 per cent). It is unfortunate that there was no before and after measure to check these figures (they are self-reported changes) and despite having data from non-participants the paper does not report how many non- participants made similar changes. Another weakness with the data is that the participants took part in the initiative at various points over a three year period, during which time many other influences may have impacted on their behaviour.

Improvements in wellbeing

A pilot study of a broad financial education initiative provided to 394 employees of **Government Agencies in the USA** was recently re-evaluated to consider the impact on 'financial well-being', (Garman, et al., 2007). The education was provided as a **series of lunchtime seminars held by skilled facilitators**. Interestingly a pre-delivery survey had indicated that only eight per cent of those completing the online survey wanted lunchtime courses; unfortunately constraints meant that this was the only option available to the agencies. The pilot is worth noting, and the re-evaluation paper is interesting in its formative conclusions, although the final conclusions appear hard to justify. The scheme offered information about **investment and retirement planning, estates and will planning, creating a spending plan and getting out of debt; ID theft, long-term care and home buying**. In all 26 one hour sessions were held and each participant went to an average of 2.3 sessions.

The data collected for the financial education initiative did not provide sufficient information for a detailed analysis (Garman, et al., 2007). The study did not allow for a control group and the before and after data was not properly coded to allow matching individuals across time. Consequently, only 50 matched records could be analysed. The authors report that the greatest improvements on average (not necessarily at an individual level) were in relation to the following questions 'how stressed do you feel about your finances in general?' and 'how confident are you that you could find the money to pay for a financial emergency that costs $1,000?'.

Analysis of large datasets

As with the evaluation of financial education in schools, large **US household surveys** have also been used to identify the impact of education within the workplace (Bernheim and Garrett, 2003). Household surveys do not attempt to look at the contents or delivery mechanism of workplace provision, but are non-the-less interesting studies with large sample sizes. They can also give us some idea of the proportion of adults who have received financial education within the workplace in the US. The study uses data from a 1994 household survey of 2,044 individuals aged 30 to 48 looking specifically at savings for retirement (Bernheim and Garrett, 2003). The data includes information about whether the employer offered, and the employee took, financial education (including seminars, professional assistance or informative materials to assist with retirement planning). Computer assisted telephone interviews collected details of total household saving (not just pensions), and also included demographics, tests of economic and financial knowledge, and information about both the sources of advice about retirement planning and childhood experiences relevant to financial planning.

The analysis indicates that, at that time, over half of all workers aged 30 to 48 (54 per cent) reported that their employer offered some financial education, and 77 per cent of those with access to such education had made use of it. Just a quarter (27 per cent) indicated that financial education in the workplace had been their most important source of information and advice, but reassuringly, the proportion who were reliant on friends and family for advice fell for those with access to financial education at work, from 25 per cent to 19 per cent.

This study recognises that proper interpretation of the results of evaluations using control groups needs to take into account the fact that it is unlikely that the people participating in optional courses are a random selection. Rather, they are more likely to be interested in their personal financial situation than non-participants, and probably more savings oriented. For this reason, the authors look at aggregate differences between workplaces with financial education schemes on offer and those without.

The results study indicate that **savings rates were higher when firms offered financial education and that the increase was concentrated in those with little in savings,** suggesting that the education was targeting the right people (Bernheim and Garrett, 2003). All measures of asset accumulation were higher amongst people in workplaces with financial education provision, although total wealth (their stock of wealth) was not significantly different, which is consistent with their suggestion that employers may have offered seminars because they were concerned by a lack of savings culture amongst their employees.

It stands to reason that financial education aimed at employees will be organised via employers. However, that does not mean that employees will only be influenced by information received through work. One interesting study sought to measure **the impact of news items** that discussed the effect of the collapse of certain large companies (Enron, WorldCom and Global Crossing) on employee pension holdings (Choi, et al., 2005). The authors argued that the collapse should encourage employees of other firms to diversify their own pension funds in order to prevent the same thing happening to them. This is not strictly speaking an evaluation, but an interesting exploration of how information more widely might impact on behaviour. It is also interesting given that the FSA has identified one aspect of financial capability to be related to keeping abreast of financial news and information — namely staying informed.

The study was based on a count of newspaper stories related to any of the three companies (various counts were tested, including one that only identified items that mentioned both the doomed companies and 401(k) investments in the same story) (Choi, et al., 2005). Analysis was undertaken of stock holdings amongst employees of two other companies that had no restrictions on diversification of stock holdings. The researchers were unable to find a robust measure of the change in stock holdings, partly because they had no verifiable model of the impact of news items. Their reported results range from an indication that two per cent of the workforce traded out of their own employer stocks as a result of the news, to indications that the news made employees trade into employer stocks. The study highlights several problems with analysing pension investments: employees can change both existing funds and new funds; values can decrease as well as increase; and there may be a time delay between making a decision to act and acting on that decision – caused either by the limitations of the investment mechanism or inertia. It is worth remembering also that some employees are only able to review their pension portfolio yearly.

3.3.1. Lessons for the FSA workplace workstream

We have seen that both the delivery mechanism and regularity of personal finance provision through the workplace varies. At one extreme Schlumberger Ltd provides its prospective and current employees with a comprehensive package of support, whilst in the university studied by Duflo and Saez (2003) provision is yearly and relies on pro-active staff members. **At the moment FSA**

workplace seminars are not planned on a recurring basis, and so it is difficult to use the literature to inform expected outcomes. The only evidence from any similar delivery mechanism found that a short seminar was not sufficient to change attitudes, knowledge or behaviour, but the study is not sufficiently robust to draw firm conclusions from (Kim, 2000).

The evaluations of workplace initiatives summarised above have provided little evidence about the appropriate coverage of various aspects of financial capability. The focus on saving for retirement has often overlooked the importance of other outcomes. Furthermore, evaluations have typically not set out to test increases in knowledge amongst this group– indeed the outcomes measured have related almost entirely to changes in confidence, attitudes or behaviour. It may be that there is a general consensus that changing knowledge is ineffectual in itself; if this is the case then it should perhaps be tested thoroughly.

Individual workplaces rarely include a representative cross section of the working population. For this reason, it may not be appropriate to consider how workplace education changes behaviour without controlling for the characteristics of the group being evaluated. For example Garman et al (1999) note that 87 per cent of the respondents to their survey had average household incomes over $50,000, and the IFF evaluation of the FSA workplace initiative found that 25 per cent of participants had incomes over £60,000 — both considerably higher proportions than would be found in national surveys of workers.

We know that workers are more likely to be active financial consumers and so it is important to know what would have happened in the absence of a workplace initiative. Otherwise apparent changes in behaviour could be wrongly attributed to the course. This can require innovative evaluation designs such as that employed by Duffo and Saez (2003). **The Garman et al. (2007) discussion and Kim(2000) remind us that without a suitable control group confounding issues can also make it difficult to draw conclusions from observed changes – for example Garman et al. note that during the time of the pilot study staff were given a cost-of-living salary increase.**

The importance of drawing on administrative records, and finding ways of matching data from individuals across time should also be born in mind. Workplaces have a large amount of data that could be used to inform evaluations, given appropriate handling (taking into account data protection issues). It appears that this type of data was used to inform the Schlumberger Ltd study (Garman, et al., 2000).

3.4. New parents

The birth of a baby brings very specific financial changes to a household. These might include changes to working patterns and household income, increased outgoings (perhaps including the cost of childcare), accommodation pressures, entitlement to child related benefits and tax credits and a range of investment and insurance decisions from depositing the child trust fund voucher to increasing life insurance and drawing up wills. It is also well documented that such momentous changes are associated with an increased risk of over-indebtedness (Kempson, 2002; MORI, 2005). The FSA has a specific strategy aimed at arming new parents with information to deal with these issues. The strategy uses trusted key-workers (midwives) to distribute the **Parent's Guide to Money** amongst expectant mothers.

Other organisations also provide financial information and guidance to parents, including charities such as **One Parent Families/Gingerbread** in the UK. The US and Canadian VISA branded financial education websites (**Practical Money Skills for Life™ and Practical Money Skills for Consumers** respectively) also provide information and calculators devoted to the financial issues surrounding the birth of a child. However, there does not appear to have been any evaluation of these schemes, and personal contact has failed to uncover any evidence of their effectiveness.

The FSA is in the process of evaluating a large-scale distribution of the Parent's Guide to Money, and previously contracted IFF to evaluate a pilot initiative that distributed 1,500 **Family Money Files** (FMF) mainly via employers (IFF, 2007a).

The pilot study did not reach a representative group of new parents. Indeed a third (33 per cent) had incomes of £66,000 and above[25], while only 12 per cent had incomes below £20,000. The financial needs of this group may therefore be rather different from the needs of most new mothers.

The IFF evaluation used a two-stage method, but did not have a before and after element. The first interviews occurred between two and 12 weeks after receiving FMF and the second at between 14 and 24 weeks. Follow-up interviews were achieved with 100 recipients and reported results relate to this subset.

The recipients of the file were overwhelmingly positive about both the design and the contents, although negative comments were also received — in particular about the 'extras' in the file that were not related to finance. A half (50) of those interviewed claimed that the file had alerted them

[25] It is not clear from the documentation whether this is household income, or individual income.

to benefits, and 41 said that they had been encouraged to think about saving and budgeting. The evaluation also asked about changes in behaviour. It indicated that people had made steps towards managing on a reduced income, but given their above average incomes it is difficult to know how to interpret this. For example, 38 had built up their balance on their current account and 46 said they had cut back on spending (which is perhaps questionable given the expenses related to the birth of a child).

It would appear from the pilot study that parents had an unmet need for information about personal finances in relation to the arrival of a new baby. The recipients indicated that they had made changes to their behaviour after reading the information given, but these changes may have occurred anyway, and they may, in part, reflect desired behaviour rather than actual outcomes. Evidence of new parents' behaviour prior to the receipt of the file, and behaviour of parents who did not get any information would allow us to understand the findings better. Given the multitude of changes occurring in new parents' lives that will impact on financial decisions it is particularly important to know what happens to parents who do not receive the Guide. As noted above, we must also be wary of generalising from this pilot as the target group was not well represented by the sample chosen.

3.5. Other strategies

There are numerous strategies aimed at increasing financial skills amongst various groups of adults. Many of these are run by 'grass-roots' organisations or third sector providers. The vast majority target low income adults, sometimes specialising in particular groups such as home buyers or community service users.

Few of the schemes evaluated match neatly to the partnership projects being funded by the FSA, but there is plenty of opportunity to learn from the existing evaluations. For ease of summarising the evaluations we have combined them under the following headings, Low income households, Parents, Tightly defined target populations and Initiatives aimed at a wider audience. We recognise, however, that some of the schemes fit more neatly under these headings than others.

3.5.1. Low income households

Schemes aimed at improving levels of financial capability amongst low income groups typically involve workshops provided in local community settings. They are most commonly designed around between 10 to 15 hours of study, and cover a range of topics which most often includes budgeting and credit use. In some cases they are attached to an asset-building scheme such as the

ANZ/Brotherhood of St Laurence Saver Plus scheme in Australia, Individual Development Accounts (IDAs) in America or the Learn$ave demonstration project in Canada (Anderson, et al., 2002; Anderson, et al., 2004; Leckie, et al., 2008; Russell, et al., 2007b; Sherraden, et al., 2004). In other cases delivery is focused on particular groups of low income adults, such as parents (for example (Chodkiewicz, et al., 2005), see discussed below).

Educational elements of Asset building initiatives

In 2002 the Government began piloting the **Community Finance and Learning Initiative** (**CFLI**) in nine areas in the UK. Four of these were designed to coincide with first asset building Saving Gateway pilots.

The CFLI pilots had four objectives, each related to financial capability or financial inclusion and targeted on 'hard-to-reach' socially excluded adults. Of particular relevance to this review, they sought 'to build financial literacy skills through the provision of appropriate training, education and support' (ECOTEC, 2004). As far as we are aware only formative evaluations have taken place, we do not have any information about the outcomes for participants.

The pilots were used to identify the most appropriate ways of delivering financial skills. The evaluation summary of the CFLI notes that the delivery required the involvement of intermediary organisations, and that it was easiest to develop relationships with such organisations if they could see how they might benefit. The pilots highlighted the importance of personalised services and indicated that people were not interested in attending lengthy courses, but preferred one-off sessions.

Given the target audience was excluded and almost certainly unused to taking part in such initiatives, it was important to find ways of encouraging them to participate. Incentives, such as free energy-saving light bulbs were found to be effective, and accessible venues were important. Take-up was also improved when the strategy was disguised as something else (such as 'Xmas on a Budget'). Leafleting, fly-posters and door to door recruitment were not effective.

We now know a great deal about the types of people most likely to face difficulties with particular aspects of financial capability thanks to the Baseline Survey, but the CFLI pilots did not have the benefit of such information. They found that:

> 'The question of the definition of financial literacy was an important issue. Initially, there was a tendency for a fairly narrow definition to be used: *the need to teach people on low incomes, whether or not they had limited literacy and numeracy skills, how to manage*

their money. The pilots soon found, however, that while ability, knowledge of, and access to, products differed widely, people on low incomes were often highly skilled money managers and well aware of the advantages and disadvantages of the different types of credit available to them.

As the initiative progressed, the pilots adopted a wider definition that encompassed *financial capability* rather than *financial literacy*, with the former involving a wider range of needs and a broader target group. This change enabled some of the pilots to provide advice and support in a much wider sense, rather than concentrating on the development of budgeting courses.' (ECOTEC, 2004)

The second pilot of the **Saving Gateway** included non-compulsory financial education and educational materials on CD-COM or in booklet form (Harvey, et al., 2007). Most of the educational element was also available to non-participants.

Take-up of the education was low, ranging from eight to 18 per cent of account holders participating across different regions. The savers did not feel they needed financial education, and could not see what such training might offer them.

Amongst over 3,5000 savers who had responded to a follow-up telephone survey, just 16 per cent had used the CD-ROM or booklet and of these 65 per cent felt that the material had *not* helped 'very much' or 'at all'. Some found the materials useful for highlighting gaps in their knowledge, but it appears that the majority found them patronising. Qualitative research indicated that the financial education classes were also seen as patronising, and needed to be marketed as an 'opportunity' rather than as 'help'.

As with the earlier pilot, there does not appear to be any information about the outcomes of people who did accept the offer of financial education alongside their Saving Gateway account, and analysis of the impact of Saving Gateway has not taken financial education into account.

The Canadian **Learn$ave** research and demonstration project sponsored by Human Resources and Social Development Canada (HRSDC) is aimed at low income households[26] in Halifax, Toronto and Vancouver who are not in receipt of social assistance, and therefore reaches above average numbers of recent immigrants. The scheme is primarily focused on asset-building with a generous

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[26] Low income is defined as 120% of the Low Income Cutoff.(LICO)(LICO is a threshold, determined by analysing family expenditure data, below which families will devote a larger share of income to the necessities of food, shelter and clothing than the average family would)

match rate of $3 dollars for every dollar saved, but the evaluation also considers the additional impact of financial capability training.

The topics covered by the financial capability training are devoted almost entirely to money management; namely budgeting, spending and credit. Participants are encouraged to develop realistic goals; to identify their skills and design strategies to overcome potential barriers. This training appears to be delivered as five, three hour modules plus some one-to-one support.

The evaluation of the Learn$ave project is still ongoing, although the last payments from the scheme were due in February 2008 (Leckie, et al., 2008). Data collection so far appears to be rigorous. The evaluation team have access to data from the management/saving system (PMIS) and they are following 1,194 participants of the savings aspect only, 1,195 who are building savings and have received financial capability training, and a control group of 1195 individuals. The respondents had to apply to take part in the scheme and they were first interviewed as part of the evaluation before they knew whether they had been accepted as participants or not[27]. They were made aware of the fact that they had a two in three chance of being accepted on the scheme.

The first telephone follow-up survey conducted by the team had a high response rate of 72 per cent even though it was not a requirement of the matched funds (participation was lowest amongst the control group, however, suggesting that being accepted on the course was an incentive to respond).

The telephone survey indicated that providing **education contributed to improved budgeting and goal setting habits over and above any impact from becoming a saver**. The groups with savings only were significantly more likely to budget than the control group, and training increased the impact (38.1 per cent of control group budgeted, compared with 44.1 per cent of the savings only group and 49.2 per cent of those who received training).

The US **Financial Links for Low Income People**[28] course evaluated by Anderson et al. is particularly interesting in that while it is sometimes provided alongside an IDA asset-building initiative it is also made available to other groups, including those who may have insufficient income to be able to save (Anderson, et al., 2002; Anderson, et al., 2004). However, the delivery is rather different depending on which group is being targeted. Participants at education-only sites get a maximum of 12 hours tuition from the **Financial Education Programme** (FEP), which is usually completed within a month. Participants at IDA sites have to complete 10 hours of the FEP and a further six hours of asset-specific training but they are given two years to complete the course. Those IDA participants

[27] It should be noted that while this is an excellent way of designing an evaluation, the authors note that it may have been responsible for some of the difficulties faced in recruiting participants.
[28] In this study Low Income was defined as up to 200% of the poverty line.

also have far more incentive to complete the course as it is a pre-requisite of the IDA payout — which is $2 for every $1 saved.

The FEP covered five topics in very basic English and Spanish: public and work related benefits; savings and investments; banking practices; credit use and interest rates; and predatory lending practices. Importantly, the core curriculum was partly designed with evaluation in mind.

Co-ordinators of the FEP were asked to monitor carefully retention rates and satisfaction with the course. Those who dropped out typically blamed a conflict with work or other courses (39 per cent), or some practical hurdle such as childcare or transport (28 per cent). Furthermore, despite the specific aim of using very simple language, a quarter of all participants *who completed the course* reported that the materials were too difficult.

The evaluation used a 'before and after' approach, using the results of questions asked before delivery to provide both a baseline for measurement and information about the needs of the groups (Anderson, et al., 2002; Anderson, et al., 2004). The research team also conducted a follow up survey, although the proportion responding to this was relatively small (just 159 participants out of a possible 300). They found that financial knowledge was considerably higher amongst asset building IDA participants than those at other sites. Before starting the course the IDA participants scored 69 per cent on a basic financial test, whilst the others scored just 49 per cent on average. The follow-up data from a subset of participants showed that average post-education scores for the education only group were 68 per cent, and 83 per cent amongst IDA participants. There were significant improvements in all five topic areas covered. However, it should be noted that whilst the before and after results from education only sites relate to the same people there was no opportunity to match data from the IDA sites, and so it is likely that at least some of the results relate to different people. It is also important to point out that whilst the percentage increase is positive the researchers conclude that knowledge remained low as the test was designed to be straightforward.

The follow-up survey also included several soft measures of success, and indicated that a large majority of participant agreed that the training improved their knowledge in all areas covered, including: poor financial practices (97 per cent) employer/government saving money (98 per cent), interest rates (98 per cent) and the benefits of banking (93 per cent) (Anderson, et al., 2002; Anderson, et al., 2004).

Evidence from another IDA programme, based in Tulsa Oklahoma and delivered through **The Community Action Project of Tulsa County** (CAPTC) as part of the American Dream Demonstration has been discussed by academics from Washington University in St Louis (Sherraden, et al., 2004). This scheme encouraged savings through a variable match rate: 2:1 match for home purchase, 1:1 for other savings goals identified. The financial training element of this initiative covered money management and asset-specific training. As with other asset-building schemes, financial

education is only a small aspect of the programme but the evaluation identified some important affects of the education.

The evaluation used qualitative methods and a computerised qualitative analysis package (Sherraden, et al., 2004). Interviews of around 1 ½ hours were held with 59 IDA participants (stratified to include low, medium and high levels of savings into the IDA) and 25 people from a pre-identified control group were interviewed for approximately one hour. The evaluation did not use a before and after approach, but the interviews developed chronologically to capture information from throughout the period[29].

One of the key findings from Sherraden et al. is that the control group (who were not in the IDA scheme) complained that nobody told them how to save, whilst those in the scheme felt that the education had helped them to understand how to save and budget. They commented that the education had not only increased their knowledge but also their savings. However, the population being studied was a rather unusual one with a high level of savings given their income and, as the authors noted, a 'strong religious element' which might make them hold attitudes and beliefs in relation to saving and money management that were rather different from the control group and the US population more generally.

Australia has also been developing an asset building initiative. **Saver Plus** is a matched savings scheme with a financial education element. It was initiated in 2003 to improve financial knowledge and help families with children to build a long term savings habit (Russell, et al., 2007b). The matched savings must be spent on educational expenses, although this is broadly defined to include a broad range of items including computing equipment and school uniforms. Unfortunately, the design of the evaluation makes it impossible to differentiate the impact of the education element from the impact of the asset building initiative and we therefore cannot conclude anything of value for this study from the findings.

Financial education provision alongside other life skills

There have also been initiatives in the UK aimed at improving financial skills amongst low income, socially excluded households. The **Basic Skills Agency**[30] developed a programme of 15 community projects within the following three strands: Local Education Authorities (LEAs); Citizens Advice and Credit Unions (McMeeking, et al., 2002). This programme was slightly different from the others reviewed in that it attempted to combine basic skills training with financial education. Delivery

[29] We would not recommend this approach when undertaking evaluations as it has much in common with the post- then pre- method and relies heavily on accurate recall.
[30] The Basic Skills Agency is now part of NIACE

varied by strand: Citizens Advice piloted tailored, one-to-one support plus some informal discussion and group work. Credit unions aimed to develop training (but with some difficulties). They also provide information leaflets with statements. Four LEAs built on a course originally developed to deliver financial skills by adding in elements of basic skills tuition.

The formative reporting from the projects identified a number of issues. The main issue found in the LEA strand was that while the course was meant to combine basic skills and financial capability, in reality learners sometimes needed just one or the other. Citizens Advice found it difficult to motivate staff and volunteers to try to deliver the training because they did not see themselves in this role. They also found recruitment difficult, although attendance by participants was good. Citizens Advice did not face the same difficulties as the LEA in terms of coverage, as the one-to-one nature of their delivery meant that they could be flexible to needs of clients. The credit unions faced problems training local volunteers and so did not provide training. They also discovered that the paper-based communication was not effective, targeted as it was at people with basic skills needs.

Some of the findings from the Basic Skills Agency programme reflected those of the FLLIP scheme. Participants needed help to cover transport and childcare costs if they were to attend a course. They also needed very simple materials that assumed little or no knowledge and reflected their low levels of basic skills.

The Basic Skills Agency programme used only qualitative evaluation techniques (McMeeking, et al., 2002). It identified some small successes in terms of self-reported levels of confidence. For example some learners from the LEA strand agreed that they felt more confident dealing with people in authority, financial institutions and benefits agencies. Some gained better understanding of entitlements, and became more confident about managing money. Citizens Advice participants reported developing their basic skills, financial literacy and self-confidence.

Financial literacy

The most widely discussed financial education scheme in Australia is **MoneyMinded**, an adult financial literacy programme that is targeted at adults on a low income, although it does not appear to exclude others. MoneyMinded provides a range of resources for educators and counsellors covering six modules, with a total of 16 subsections (Russell, et al., 2007a; Russell, et al., 2006a; Tippet and Kluvers, 2007). It is funded (but unbranded) by ANZ and delivered as a series of seminars through community organisations, including at least one of which has undertaken its own evaluation, The Smith Family (Feeny, 2006). It appears that the modules are optional, and most participants complete only one (Russell, et al., 2006a). Some one-to-one support is available but

the course is primarily delivered as a series of workshops covering: planning and budgeting, Getting Started (opening a bank account and making payments), credit providers, dealing with debt and rights and responsibilities.

The most recent evaluation report estimates that MoneyMinded reached 22,458 participants in the year to September 2007.

As found by the FLLIP evaluators, the formative evaluation process of MoneyMinded highlighted the need for very simple materials that meet literacy, language and numeracy needs. There was also some concern amongst facilitators regarding the relevance of the course for older people, and that budgeting advice appeared to risk disempowering the poorest. The course was not considered to be useful for people already in financial difficulty, and didn't take into account the needs of people who genuinely cannot work. However, the savings element was well received by participants surveyed by Russell et al. (2007a) and Feeny (2006) reported that immediately after the course, participants reported that they had most appreciated learning about 'goal setting' and 'plugging personal spending leaks', perhaps indicating the immediacy of their financial needs.

There appears to have been no large-scale, quantitative evaluation of MoneyMinded despite large numbers of participants and a stated aim by The Smith Family (just one of the organisations delivering it) to reach 100,000 people by 2010 (Feeny, 2006).

Feeny collected questionnaire data from just over 100 MoneyMinded participants before and after they completed training. The course was held during the day and aimed at low income families; the majority of the participants were therefore women who did not work. He also collected information from 45 participants after the Christmas period to gain a deeper understanding of how the scheme may have impacted on their ability to manage at this difficult time[31]. He found that only seven per cent claimed that they did not cope very well over the holiday period, although 11 per cent were struggling to stick to the Personal Money Plan they had drawn up on the course. It is very likely that this under-represents the extent to which all participants struggled over the holiday period, as the respondents were almost certainly those who felt more positive about the course, and least stressed.

Other small-scale, qualitative studies have been used to identify changes that could potentially be attributed to MoneyMinded: for example of 28 focus group participants 26 reported 'a positive change in the way they managed their finances', (Russell, et al., 2007a). Unfortunately, it is

[31] In Australia, the school year also ends at Christmas, and so parents have the additional financial burdens of long summer holidays and new uniform requirements.

impossible to generalise from any of the MoneyMinded evaluations, particularly given that the research participants are very likely to be satisfied customers.

All My Money is a US scheme aimed at low income adults, and those who support them. It was evaluated between 1997 and 2001 (Lyons, et al., 2005). It is primarily a train the trainer scheme, although the evaluation includes client outcomes. During the evaluation period the training typically consisted of eight instructor led lessons undertaken across 16 to 20 hours. Topics covered included making spending choices, envelope budgeting, planning expenditure, understanding credit, handling credit problems, building consumer skills, taking action and managing a checking account.

The US All My Money programme evaluation used self-assessment questions to measure changes such as 'how overall financial management performance changed both before and after the program" and questions to measure the impact of the programme such as " how much do you think your ability to manage money has changed after the program?" using a five point Likert scale (Lyons, et al., 2005). The study reports that that 85 per cent of clients felt that their financial behaviour had improved as a result of the programme. Those who felt they had made some improvement in their financial behaviour had completed an average of 3.9 sessions, compared with 2.9 sessions amongst those who did not see any improvement. They were also more likely to be educated, in the upper income brackets and have one child. This may indicate that improvement was more likely after the third session, or that those who could see that the course was of benefit to them were more likely to continue.

This scheme is primarily focused on asset-building, and financial capability is not a universal part.

3.5.2. Parents

We have found two evaluations of projects aimed specifically at parents. The first describes a joint initiative from The YWCA in New South Wales and Citigroup Foundation in Australia under the working title of **EvenStart** (Chodkiewicz, et al., 2005). The second evaluation focused on the delivery of Pots of Gold family finance within Sure Start Children's centres across Newcastle (NIACE, 2007).

The EvenStart initiative aimed to deliver basically the same financial education syllabus as was used in school to parents, with an emphasis on helping parents to discuss money issues with their children. Topics covered included talking to kids about money, budgeting, pressure points and priorities, credit and debt, sources and costs of borrowing, financial scams, rights as a consumer, dealing with institutions, and where to find help. Despite a range of incentives including free fruit and vegetable boxes, and calculators the pilot failed to recruit many parents in two of the three schools participating, indicating the potential difficulties recruiting participants for such initiatives.

The parents that took part in the EvenStart pilot valued the course, but indicated that they would have liked to have been taking studying it at the same time as their children, and would have welcomed the opportunity to observe the children's lessons.

The EvenStart evaluation included interviews with school principals, practitioners, staff from YWCA and Citigroup and focus groups with parents. Evaluation sheets were also distributed at the first and last session. The parents who took part in the EvenStart training reported positive outcomes in terms of managing their own money, talking to their children about money and encouraging them to save, and making connections with other parents. (Chodkiewicz, et al., 2005). The researchers concluded that the programme could be further improved by being tailored more closely to the needs of indigenous women, single parent families and single income families, perhaps by using different scenarios to cover these groups. This indicates the difficulty of meeting the needs of even such a well defined group of adults as parents on a low income.

Pots of Gold family finance included six topics of clear relevance to the parents delivered as two hour, stand alone workshops. The six workshops covered: baby budgeting, savings and investments, debt, talking about money from a family perspective, buying goods and services and the Child Trust Fund. In addition, parents could complete 30 hour of Skills for Life accredited topics: 'shopping good buys', 'What is money?', 'complain to gain', 'taking your money out and about', 'exploring savings' and 'finance for pleasure'. NIACE report that all the parents completed the 12 hours of training from the six initial workshops in the first phase of the evaluation and that three quarters of those who began training in the second phase went on to complete the course, despite the fact that the inclusion of maths (including fractions, subtraction and percentages, and converting money) in the workshops was not well received.

One interesting and perhaps unexpected finding from this project was that one of the aspects of the pilot that the parents particularly liked was the focus group – which was part of the evaluation process, designed to gather information. Whilst we cannot be sure, it seems plausible to assume that this was the only (or main) opportunity that parents had to share their experiences and talk openly during the course.

Pots of Gold family finance was evaluated through a series of focus groups with a total of 83 participants (NIACE, 2007). There does not appear to have been any measure of financial capability before the scheme was implemented. The researchers report that '"Parents signalled a greater confidence and knowledge of money matters, specifically in relation to everyday family life and involving children and financial choices". This does appear to reflect the findings of EvenStart discussed above, and perhaps indicates the need to improve parents' skills in talking to their children about money matters, something that would also potentially improve levels of financial capability amongst school children.

3.5.3. Tightly defined target populations

A number of schemes appear to be trying to address the financial capabilities related to **choosing products** and **making ends meet**, and the associated problems of **over-indebtedness**. Such schemes explore ways of encouraging responsible borrowing and money management.

Researchers in the US have tried to identify the impact of lack of ability to choose products and assess credit risk on the likelihood of taking a sub-prime loan. Their research uses indicators of financial literacy (in particular, how well they rate their own credit worthiness) alongside actual credit score (FICO score), and finds that the impact of actual credit scores far outweighs consumers own assessment of their score (although the majority predict their own score fairly accurately). They conclude that this indicates that the focus should be on education which helps consumers to improve their credit rating and not simply be more informed about what their current rating is (Courchane and Zorn, 2005).

Courses aimed at specific target populations such as bankrupts or home buyers appear to be shorter and/or cover only those topics of specific relevance to the target group than those aimed at more diverse groups such as people on a 'low income'. This presumably ensures that limited resources are used to best affect. Consider, for example the US homebuyer course run by Community Churches (a bank) and the Community Mortgage Loan Program (CML). This seeks only to 'enable borrowers to estimate more precisely the amount of debt they will be able to service'[32], but does so over an extended period of up to two years (Hartarska and Gonzalez-Vega, 2006). On the other hand the Coalition for Consumer Bankruptcy Debtor Education pilot education programme in New York focused on consumer empowerment and lasted just three hours. It covered 'Money thoughts', 'Planning and Goal Setting', 'How to create your own financial plans' (similar to **money management**) , 'Sales scams and credit use' (similar to **choosing products**), 'The Future' (**planning ahead**) and 'Resources' (**staying informed**) (Block-Lieb, et al., 2004).

A US study of the impact of home-purchase counselling associated with **Freddie Mac's Affordable Gold** program has looked at the variations in impact based on different providers and delivery methods (Hirad and Zorn, 2001). The counselling is intended to lower the risk of home loans to high risk, (prime) borrowers. Since 1993 it has been a requirement that almost all borrowers undertake this counselling, resulting in a very large database from which to make comparisons.

The large-scale, quantitative study of pre-purchase homeownership counselling by Hirad and Zorn in the US found some evidence of the benefits of financial counselling (Hirad and Zorn, 2001). The

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[32] Indeed the authors note that 'the counselling did not include topics on responsibilities of homeowners' indicating just how narrow it was.

researchers used data from 39,318 loans originated between 1993 and 1998. Of these, approximately three per cent were exempt from the counselling because they had savings equivalent to two months mortgage payments, they had a loan to value ratio of 95 per cent or less or they had previously been mortgagors[33]. The study was able to differentiate between different delivery mechanisms – one-to-one, home-study, classroom delivery and telephone counselling. The researchers report that one-to-one counselling was most effective, leading to the lowest delinquency rates. Indeed their analysis indicated that the risk of 90 day delinquency was reduced by 34 per cent amongst those who receive this type of counselling. They also found evidence that the home-study and classroom provision was beneficial, but the telephone counselling did not have a significant impact. Interestingly, they did not find any evidence that different providers led to variable outcomes, once the delivery mechanism was controlled for.

Unfortunately the Hirad and Zorn report does not discuss the contents of the counselling, and it seems likely that these varied across providers and delivery mechanisms. It should also be noted that the study relates to the period 1993 to 1998, and it cannot be assumed that either the types of counselling provision or the economic climate will result in similar outcomes today. Furthermore, it is also worth noting that the report identifies significance at the ten per cent level. Some analysts would not consider this sufficient evidence of a significant association in such a large dataset

A recent report from the US summarises the evidence from a pilot study of a scheme provided by the **Redevelopment Opportunities for Women's Economic Action Program (REAP)** (Sanders, et al., 2007). The scheme emphasised the connections between poverty, oppression, and violence and aimed to increase both access to and knowledge of financial resources. The course covered money and power; developing a cost-of-living plan; building and repairing credit; and banking and investing. It was delivered in four classes over 12 hours, making it rather longer and broader than the other initiatives discussed that target tightly defined groups.

The evaluation of the REAP initiative reported an outcome measure 'created with the intention of broadly capturing key components of the economic education curriculum offered' (Sanders, et al., 2007). The evaluation was well designed and included a control group[35] made up of women from different shelters (who were subsequently offered the training). Pre- and post-tests were used to

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[33] This provided the researchers with a quasi-control group, although it is important to recognise that they were considered to be lower risk, hence being exempt from the training.

[35] It is important that the control group were from a different shelter; otherwise they would almost certainly have learned something about the course from the other women. However, they were not an identical group – having typically been partnered for only four yeas, compared with the seven years of the group receiving the training.

identify changes. However, the crisis nature of the shelter resulted in attrition, leaving a final sample of just 32 women who had received the training, and a control group of 35 women. Given the small sample and problems with attrition it would be wrong to generalise from the findings, but they tentatively indicate that there were limited (if any) gains in financial knowledge, but (claim the authors) significant improvements in the women's confidence in dealing with financial issues – although these were explained statistically by the length of time the women had been partnered. It is interesting that there were no noticeable financial knowledge gains given the length of the course and the topics covered. This may be related to the research instruments used; the authors conclude that their measurement of financial literacy should be reviewed so that it reflects the course, but this statement does not appear consistent with their statement that the outcome measure was originally 'created with the intention of broadly capturing key components of the economic education curriculum offered'. It may also be the case that people in crisis are not in the best position to absorb general information as they have more urgent advice needs.

3.5.4. Initiatives aimed at a wider target audience

Several of the FSA workstreams and much of the third sector provision of financial education focus on particular target groups, but there is also provision designed to meet general needs.

Methods of delivery, reach and topics covered

Citizens Advice is well known across the UK for providing high quality, free consumer and legal advice, with a particular focus on debt. It has also been piloting more general financial advice through its bureaux, targeting a range of vulnerable or socially excluded groups including asylum seekers and prisoners (Citizens Advice, 2006).

The three year study of general financial advice provision through Citizen's Advice identified some positive outcomes (Citizens Advice, 2006). However, whilst the evaluation was overseen by ECOTEC Research and Consulting Ltd, it should be noted that the evaluation data was collected by the facilitators delivering the support, some of whom had no experience of evaluation and monitoring. There does not appear to have been a consistent approach to this aspect of the evaluation. The pilots identified improved levels of confidence across a range of clients and increased knowledge around budgeting, saving and accessing financial services. One particular pilot worked with women in a refuge, 'for whom money was often one aspect of control exercised by an abusive partner'. The researchers reported that the 'pilot helped to break down negative associations with finance, in addition to equipping the women with basic financial skills'.

New Zealand's Retirement Commission has a widely respected interactive website under the brand name **Sorted**, which has been designed to improve financial awareness in New Zealand

(Pensions Policy Institute, 2006). The ultimate aim of the website is that it will encourage lifetime financial planning, but in order to appeal to a wide audience it does this without mentioning retirement. Although the website aims to reach as many people as possible, there have been recent developments to segment the population by providing more targeted websites under the same brand, including Sorted Kids and Money, Sorted Students, and 60plus. However, there is still some indication that there are pockets of the population who do not feel that the information is appropriate to them. One survey indicated that of those aware of website, reasons for not visiting included a lack of relevance and that this was particularly the case amongst those with higher incomes.

An overview of analysis and evaluations of the Sorted website in New Zealand indicates that one in five New Zealanders have accessed the website, and that it has achieved the longest average visit time of any NZ website; some 15 minutes (Pensions Policy Institute, 2006). Almost seven in 10 visitors (69 per cent) said it was either likely or very likely that they would take action or change the way they did things as a result of using Sorted. The savings rate in New Zealand is also increasing, and it appears that some have attributed at least part of this improvement to the introduction of the Sorted website.

The FSA also provides information to a wider audience via its information leaflets and well respected website, **Moneymadeclear**. Both are designed to give information in plain English about a range of financial matters.

The FSA is still completing full evaluations of the various Moneymadeclear provisions. However, a survey of 3,000 users of the insurance section of their website (Insurance Made Clear) indicated that the vast majority found the site useful (85 per cent) and that 70 per cent claimed that they were more likely to make an informed decision as a result of their visit (FSA internal documentation). It is important to note that these users will not be representative of those who access the website, or indeed of consumers as a whole.

The FSA has undertaken a pilot study in 44 bank branches to consider the impact of distributing their leaflets via banks. The study included brief interviews with bank branch users as they left the building. The results of these interviews suggest that people failed to notice the literature, but that most (presumably after being shown the literature) described them as bold and colourful, and agreed that the guides would be very likely to help them become more informed and ask the right questions. However, the interviews lasted just seven minutes which suggests that consumers did not have long to consider the literature before replying.

The recent review of **generic financial advice**[36], undertaken by Otto Thoresen, included the results of two prototype tests, which also provided links for advice seekers to access the FSAs Moneymadeclear website (Thoresen, 2008). Whilst there are important differences between advice and training or education, generic advice is clearly aimed at increasing financial capability and is therefore relevant to this study. One test was undertaken in North West England and consisted of two elements: Consumer Direct provided a telephone helpline while Citizens Advice provided face-to-face advice, using their existing brands. The other test was undertaken by A4e under the banner Money Fitness.

The generic advice study included an opt-in online consumer research survey with 1,011 adults to ascertain the demand for generic advice. The results indicated that higher income users were not more or less likely to access the generic advice at some point, but were more likely to make use of it frequently, which is counter to expectations (but perhaps indicates they would prefer not to use fee-charging or commission earning advisers)[37]. However, it is important to consider that an online survey will not yet be representative of the UK population, as access is not universal, and that opt-in surveys are unlikely to even represent current web-users.

The evaluation of the prototype generic advice projects undertaken as part of the Thoresen Review involved a quantitative survey of 168 service users and qualitative interviews with 36 users. The response rate for all users of the prototypes was just 15 per cent, although this increased to 70 per cent amongst those who had used either face-to-face or telephone advice. The quantitative survey of users suggested that the majority found the service helpful (85 per cent).

The Money Smart scheme in the US also has appears to have a broad target audience, although it was originally developed to help adults outside the financial mainstream (Federal Deposit Insurance Corporation, 2007). It is often provided in association with particular financial services such as mortgages or current accounts. It consists of a modular, 10 part curriculum designed to assist community outreach and economic development. The modules cover an introduction to banking; borrowing basics; choosing and keeping a checking account; keeping track; saving; consumer rights; credit histories; making a credit card work for you; borrowing to buy a house and home ownership. The Money Smart provision is flexible, has no copyright, and can be used in any way the provider feels is appropriate making it ideally suited to organisations supporting or serving a wide range of people. Furthermore, it is available in six languages and both Braille and large print. While the providers are free to use the materials provided by Money Smart as they choose, they are also given

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[36] In his review, Thoresen concludes that Money Guidance is a preferable working definition
[37] People with high incomes potentially have more to gain from making informed decisions, but they are not typically expected to have an unmet need for advice. Conversely, those on a low income have less to lose, and are assumed to have fewer options for free, impartial advice.

considerable help in delivering the course. The presenter pack includes scripted class presentations that even identify the correct moment to distribute hand-outs.

The Federal Deposit Insurance Corporation (FDIC) evaluation of **Money Smart** looked only at provision in English and Spanish (Federal Deposit Insurance Corporation, 2007). It was a thorough evaluation, undertaken by FDIC with input from Gallup and others, and included only sites that provide training over a period of time (rather than as a day course) in order to make a before and after test of behaviour meaningful. However, the evaluation does not refer to particular modules, so unfortunately the outcomes identified cannot be related back to specific items taught. Nevertheless we do know that all 100 sites included in the evaluation taught at least three of the modules relating to checking accounts, keeping track, saving, credit histories and credit cards.

The evaluation included surveys at three points in time, and the team received matched surveys from 68 of the evaluation sites. The first two surveys were self-completion surveys handed out before and after the course. Responses to these were 2,628 and 2,079 responses respectively. The third survey was undertaken by telephone six to 12 months later with those for whom matched data was available across the two previous waves (1621 participants) and achieved 631 responses. It is responses from this group of 631 individuals that were analysed for the evaluation, using both simple analyses of changes in proportions giving positive answers to particular questions and complex statistical techniques to identify associations between outcomes and demographics. The evaluation team found it difficult to recruit sites for the evaluation, and also had to overcome some difficulties in order to use sites that opted-in. These difficulties included having insufficient staff, which indicates that the findings may not be replicable without the additional resources put in during the evaluation period. It is also important to reiterate the problem with the sharp decline in respondents by the third survey, which will almost certainly bias the findings towards those who felt that the scheme had been helpful, as the authors note in their appendix. Unfortunately, in this case the situation is made worse because key demographics were only collected at the final wave, making it impossible to know the likely impact of the low response rate.

The results indicated that completing the courses on offer led to a 25 percentage point increase in those who intended to save into a savings account over those who were already saving at beginning. By the final telephone survey 39 per cent were actually saving, an increase from 26 per cent. Over half of the participants indicated they were more likely to comparison shop for financial products having completed the course. The proportion agreeing that they were in control of their own money had increased from 69 per cent to 82 per cent by the first follow-up survey, and continued to improve to 91 per cent by the final telephone survey. Similar findings were identified in relation to other attitudes.

By the second interview over half of the respondents (53 per cent) reported a reduction in debt (particularly those under 25 and those with less than high school education). Almost all those

that were using a budget by the second survey were still doing so when they responded to the telephone interview (95 per cent). There was some indication that participants were becoming active financial consumers, choosing new products or switching accounts either to a different product or a new provider. However, such evidence is always difficult to interpret without knowing something about the suitability of the products held before and after the switching behaviour, or at least the decision process. The evaluation does not indicate how the new products were chosen.

3.5.5. Lessons for the FSA

Anderson et al note that despite their best intentions to design a robust analysis, the anticipated dual purpose of the pre-course test caused problems (Anderson, et al., 2002; Anderson, et al., 2004). This 'before' measure was intended to be used to identify the types of information most relevant to the participants as well as measure prior knowledge. However, the researchers subsequently recognised that this would weaken the evaluation because core components were necessary to conduct comparisons across sites, whereas the needs of groups might suggest using different components in different places. A similar issue is apparent in the detailed evaluation conducted by the FDIC (Federal Deposit Insurance Corporation, 2007). This is an important consideration for the FSA, and others.

As discussed elsewhere in this report, the design of the survey instrument used in evaluations is one of the keys to drawing firm conclusions. For example, Anderson et al. do not say why they chose to use a test in which they consider a score of over 80 per cent to be a relatively low score, but it seems that such a test would have little chance of picking up wide variations in capability.

The study by McMeeking et al. (2002) highlighted the difficulty with trying to combine financial skills within other forms of training and deliver them through existing organisations. In particular the combination has to be appropriate and desirable to those being targeted and it must be within the range of activities that frontline staff are willing and able to do.

Studies of interventions aimed specifically at reducing mortgage delinquency have shown that counselling higher risk consumers can help to prevent non-payment. This suggests that particularly focused programmes with very specific aims can achieve some success, although Hirad and Zorn (2001) provide some indication that the least costly method (telephone counselling) is not effective.

3.6. A focus on delivery mechanisms

We have outlined the delivery mechanism used by each of the initiatives identified in this

report. However, we believe it is also worth looking across the target groups to see whether there are any general lessons to be learned about particular ways of delivering financial information and education.

The evidence provided does not tell us much about the most appropriate delivery mechanisms. Very few evaluations have looked at how the financial education was delivered and the impact that this may have had on the outcomes. Even where delivery mechanisms have been a key focus of the initial scheme there has been no comparison with alternative mechanisms from which to draw conclusions.

3.6.1. Classes and seminars

The majority of the initiatives that have been evaluated have used seminars, lessons or workshops to deliver key financial ideas and information. What evidence there is suggests that it is important that the materials used in such lessons must be suitable for everyone in the target group (remembering that such 'groups' can still include people with a range of needs and expectations). It is also necessary to make sure that those people delivering such courses feel confident and well prepared. The evidence of the impact of seminars and lessons is mixed, but we have concerns that the instruments used to capture changes do not always reflect the course content or the abilities of those being tested. There is, however, some indication from the recent Ofsted report that accredited courses are more effective than occasional lessons.

We believe that at present there is little robust evidence to suggest that classes increase knowledge amongst school children, although some findings do indicate that some children perceive themselves to be better informed.

The experience of the University of Wisconsin-Madison indicates that students can learn to become more financially capable through formal classroom teaching and study. It is interesting to consider whether the improvement observed by this study could be related to the fact that the course was an important part of the students degree programme, giving them additional reason to study it thoroughly. This is not something we can answer from the data available, but it is a point that is worth raising with educationalists.

Seminars are a common, and well received, way of providing financial education in workplaces. It is in the interests of companies to provide such education to improve staff wellbeing and increase retirement planning. Furthermore, the evidence suggests that financial education improves recruitment and retention, indicating that staff see such provision as a valuable perk.

Several of the reports focusing on target groups other than children have commented on the

difficulty with finding a suitable time to deliver workshops. Those held in community venues during the day inevitably attract few working adults, whilst courses held in the evening are impossible for people with caring responsibilities or other engagements. Holding workplace education during the lunch hour does not appear to be welcomed, although the evidence available indicates that people will still attend.

3.6.2. Printed materials

It appears that it is uncommon for schemes to rely solely on printed materials. However, the IFF evaluation of the FSA's Parent's Guide to Money has indicated that parents, at least, are receptive to such information. The FSA workplace strategy has also attempted to use this form of delivery, but an early evaluation failed to gain the feedback necessary to know how the information was received, suggesting a low level of interest.

Prospective students in the UK are being sent printed materials alongside their UCAS forms in an initiative from Cattles and Credit Action. The evaluation is ongoing, but the principle of targeting people at a time of change is not a new one, and it will be valuable to a range of policy makers to learn if the initiative proves to be successful.

3.6.3. Online education and information

Providing information and education online can be a relatively low cost way of reaching large numbers of people. Evaluation of the Sorted website in New Zealand has indicated that people can be encouraged to access such information, and that some users believe that they may change their behaviour as a result of the website they have accessed. Studies of student credit card holders have also shown that some will access financial education online, and the indications are that they become more responsible card holders as a result.

3.6.4. Other delivery mechanisms

It appears to be uncommon for delivery mechanisms to be particularly innovative. We have identified two delivery mechanisms within schools that break the mould and appear to aid learning (a comedy play and a selection of short stories), and those aimed at the NEET group have also used tested participatory approaches, such as film making. The two studies of innovative delivery in schools both appeared to have a positive impact on both knowledge and attitudes, but as pilot studies we must be careful not to put too much emphasis on the results. We do not know how well participatory methods work overall with the NEET group, but we should be aware that, unlike either a play or a short story, film making proved to be resource and time intensive, and was not inclusive – reaching just a small minority of the young people who might benefit.

The University of Wisconsin-Madison discovered that innovation is not always welcomed and this is something that should be considered carefully. We do not know why the students were unimpressed by the podcasts but it is reasonable to assume that some people may have particularly conservative ideas about how they expect to be taught, or they may simply not value innovative approaches and change for the sake of change.

Some provision includes a small amount of one-to-one support or telephone counselling. This is a costly way of improving financial capability but allows for very targeted information to be provided, and it is much easier to identify particular needs that may be overlooked in a group setting. However, none of the evaluations reported here has focused exclusively on one-to-one provision or telephone counselling and so cannot draw any conclusion about its effectiveness.

Most of the evaluations reported have focused on financial education provided as a stand-alone initiative. However, we have also seen that in some cases participants are incentivised to participate in financial education with the promise of some financial product or reward. In particular, many of the matched savings schemes on offer require financial education as a pre-requisite to accessing the matched funds. Some credit companies, and mortgage lenders in particular, also insist on financial education before providing their services. If there is to be an increased drive to improve levels of capability compulsion may be one approach to ensure that more people participate in schemes.

4. Summary and conclusions

It is not an easy task to evaluate the impact of a financial capability initiative, and few of the evaluations summarised can be used to form robust assumptions about how a particular scheme might be expected to impact on a population of interest. It also appears that there is some difficulty in identifying what an initiative might achieve, and deciding how to measure success, possibly because of a lack of clear objectives at the outset.

Most evaluations that have identified measurable outcomes appear to have focused on savings behaviour, but it is not clear whether this is the easiest behaviour to change or the easiest to measure. Overall the evidence relating to improvements in terms of **money management** and **planning ahead** is stronger than improvements in the other financial capability domains. There appears to be little if any change to **staying informed,** the domain that includes knowledge. It may be that any short-term improvements in knowledge can only be retained through hands-on experience.

The literature indicates that while it is widely believed that financial education in schools is valuable, the outcomes are likely to be long-term and will therefore be difficult to measure during an evaluation period. In the shorter term there may be some improvement in **confidence** but the evidence that is currently available suggests that only the very youngest gain financial **knowledge** through school interventions. Rather, it appears that the main impact of school financial education is to improve **behaviour** in adulthood. For example, Bernheim et al. (2000) found that compulsory financial education was associated with positive savings behaviour of adults who had grown up with parents who were not savers.

Strategies aimed at adults also appear to have some long term benefits. Workplace financial education seminars have been shown to be associated with an increased likelihood of saving for retirement. Improved recruitment and retention appears to be an additional, and perhaps unexpected, advantage of workplace financial education, indicating that employees value such provision.

There has been no systematic testing of the delivery methods used to increase financial capability. This is a serious oversight. The process evidence that is available indicates that classroom or workshop delivery depends on the quality and suitability of the teaching materials available but also on the confidence of the teacher or facilitator. We know virtually nothing about the factors that might influence the success or failure of schemes using other forms of delivery.

Given the difficulty in drawing firm conclusions from the summary above, we end this report by highlighting the factors that we believe should be included in an evaluation.

4.1. Evaluation design and implementation

In this report we have confirmed the widespread consensus that we do not yet have a large and robust body of evidence to draw on when considering the likely impact of a financial capability strategy. This is also discussed in recent reports by others, for example:

> *'Our review found that little formal measurement of the quality of financial education teaching is taking place through OFSTED or any other inspection mechanism'* (England and Chatterjee, 2005)
>
> '*While financial literacy programs have proliferated, research measuring the effectiveness of the programs has not kept pace.'* (Braunstein and Welch, 2002)
>
> ***'Recommendation 5: States should improve their capacity to evaluate financial literacy programs****. Currently, not enough is being done to evaluate the effectiveness of financial education programs.'* (National Association of States Boards of Education, 2006)

The FSA's own response to the National Audit Office's comments about the Financial Capability strategy also indicates recognition of the challenges of conducting robust outcome evaluations:

> *'We agree with the NAO's finding that measuring outcomes and changes in behaviour is inherently difficult. But we will continue to develop how we measure the effects of our programme to ensure that money is put to best use. In doing so, we will take into account the NAO's helpful suggestions for additional ways to measure progress'.* (Financial Services Authority, 2007)

A recent survey of American financial education providers drew the conclusion that evaluations were still far from satisfactory although the authors also recognised that the reasons behind less-than-adequate evaluations included the lack of resources, particularly at grass-roots level, and the lack of evaluation tools and training sessions at the national level.

> *'This study has shown that the current state of program evaluation is still far from satisfactory in many respects. Several areas of deficiency were identified such as lack of evaluation capacity, failure to integrate the evaluation in the program design, and lack of an industry standard for program evaluation'.* (Lyons, 2006)

Given this widespread concern about the lack of standards for evaluating financial capability initiatives, it is sensible to summarise the factors that we believe are essential to produce results that are both reliable and generalisable. We discuss below the ingredients of a robust evaluation.

4.1.1. Types of evaluation

An evaluation should itself have clear objectives, which would typically include determining the extent to which the programme objectives have been met, and/or assess the value of a particular strategy or action.

Evaluations typically fall into two, overlapping groups:

1. Process evaluations — identifying the challenges and successes of organisational and procedural aspects of delivery.
2. Outcome evaluations — measuring or describing the results of the process – perhaps indicating how many people have passed a financial knowledge test, or what proportion have become savers since participating in an initiative. The outcomes identified are typically related to knowledge, behaviour or attitudes.

The aims and objectives of a strategy will indicate which type of evaluation is most appropriate. For example, if the aim is to get 10,000 pupils to study economics then a process evaluation is necessary to look at the impact of the recruitment strategy, while an objective of increasing the exam grades of economics students in secondary schools would require an outcome evaluation. Many projects will have objectives that require both process and outcome evaluations, particularly when it is important to know which aspects of the process were responsible for the outcome.

Process evaluations tend to be the most straightforward if management data is collected at key points during the process. Outcome evaluations, however, can be extremely complex for a number of reasons. First, it can be very difficult, costly and time-consuming to measure outcomes, particularly where the objective is not clearly defined. For example, to evaluate an initiative with the objective of increasing 'levels of financial capability' would require a measure of all aspects of financial capability. A more strategic approach would be to identify the particular aspect of financial capability that is to be targeted, such as *planning ahead*, so that the evaluation can be designed with a particular focus.

A number of articles have laid out the requirements of a good evaluation. Vitt et al (2000) provide a good example of this. They discuss seven components that are necessary for effective evaluations, which can be summarised as follows:

- A baseline measure.

- Measurement objectives that are appropriate to the programme philosophy.
- The combination of research and education principles.
- A follow up survey within six months of programme completion.
- A well-maintained contact database of participants.
- An evaluation model constructed to measure outcomes, and potentially undertake cost-benefit analysis.
- Communication avenues that can be used to demonstrate the value of the programme, to compete for resources and to make improvements.

(Vitt, et al., 2000)

In the remainder of this report we focus on outcome evaluations, as this is the key objective of the paper, although we do highlight key findings of interest to those planning programme delivery.

We describe below the elements that we believe are important when conducting robust outcome evaluations of financial education initiatives.

4.1.2. Data collection and analysis

To evaluate a scheme it is necessary to have good data, including well- maintained administrative records that include contact details of learners, and a list of the initiatives they have participated in. It is important to find ways of encouraging participants to provide information before and after the initiative and agree to further contact so that additional data can be gathered, whilst recognising the sensitive nature of the topic and the need for confidentiality.

The participants who agree to take part in the evaluation may not be representative of all those who were involved with the initiative. It is very likely that those with the strongest opinions will step forward to discuss their experiences. Those who completed the course are more likely to agree to follow up questions than those who dropped out because they did not feel that it met their needs. Whilst it is not always possible to encourage a representative group of people to take part in the evaluation, it is vital that the administrative records are available so that the evaluation team can identify likely biases, and, if possible, encourage participation amongst under represented groups or at least correct for them in the analysis.

The number of people who take part in an evaluation is also important. In-depth qualitative studies can be completed without large samples but they do need sufficient participants to identify patterns in the responses. Detailed quantitative analysis relies on a sample size that is large enough to be certain that even small changes in outcomes are statistically significant. Ideally, the sample should also be sufficiently large that it can be sub-divided into smaller groups of interest for more

complex analysis.

The instruments used to collect data also need careful consideration. Questions must be designed specifically around the objectives of the initiative, and take into account the particular circumstances of the participants (such as language or literacy difficulties, age of respondents, difficulties with concentration, time constraints). A failure to ask appropriate questions not only weakens the evaluation but wastes valuable resources.

In some cases it is acceptable, and even necessary, to use self-reported measures – such as collecting information about attitudes, or details about savings and wealth accumulation. However, we would strongly recommend that knowledge is tested directly. Several of the survey instruments that we have seen ask people to rate their own levels of knowledge, but such questions are open to wide interpretation and depend heavily on participants general levels of self-confidence and awareness. They therefore provide little in the way of useful evidence.

Before and after

Measuring outcomes alone will rarely provide sufficient information to evaluate a scheme effectively. Ideally we need to know where we are measuring from; we need to know what *additional* knowledge or experience has been gained. Otherwise, we may confuse initial endowments with outcomes. Imagine we are running a course aimed at encouraging more people to save for Christmas. We might discover that at the end of the course 80 per cent are saving for Christmas but without knowing how many saved before, we have no way of knowing if this is an improvement.

It may be that there is sufficient evidence to assume certain things about initial knowledge levels on aggregate. For example, the Baseline Survey of Financial Capability can tell us the average financial capability amongst different groups of adults, such as parents or the employed. This could be used as an indication of levels of financial capability before an initiative began, and it would then be possible to look at the average outcomes of the participants to see whether they are significantly different from the baseline group. However, average outcomes can hide important variations that a before and after measure could identify. For example, it may be that average scores increased but that the increase was entirely amongst those who had the lowest scores initially – indicating that the initiative was having little or no impact on those with average or high levels of capability. It is therefore important to determine the level of detail required from an evaluation before opting for this approach.

The analysis of individual level data collected by before-and-after designs requires careful consideration because responses of a single person will not be independent across time; a

persons actions today are likely to be correlated with their actions previously (Fry, Forthcoming). There are techniques to take this lack of independence into account, and it is important to consider which of these will be most beneficial in understanding the outcomes being measured. Perhaps the most straight forward way to analyse such data is to look at *transitions*, such as moving from being unbanked to banked, or being a non-saver to a saver.

Counterfactuals

In order to draw firm conclusions about how a particular initiative has impacted on financial skills we also need to know what happens to people who do not take part in the scheme. If we want to be even more certain that the scheme had made a difference then we could look at the relative situation of participants and non-participants with similar socio-economic characteristics. Only then can we be reasonably certain that any changes we observe are not caused by some other, compounding factor.

When designing a project with evaluation in mind it is often possible, and preferable, to identify a 'control' group from the beginning. For example, in the workplace it might be possible to provide training to half a workforce, chosen at random from those who wanted to take part (random assignment), or to compare workers in one factory who received training to a similar factory without (matching). Random assignment amongst people in close proximity can be problematic however, as there is a tendency for information to be passed across (cross-contamination).

An alternative, but less similar, control group could be recruited from those who did not agree to take part in the initiative. This makes it possible to control for certain characteristics, such as workplace or gender, but there is a real likelihood that there are other important differences between those who opt-in to an initiative and those who don't. For this reason it is less than ideal.

One of the key benefits of a control group is that they can help to identify situations where 'doing nothing' could leave people worse off. For example, we know that factors such as a fall in income and birth of a child are associated with an increased likelihood of becoming over-indebted. If the FSA can help to prevent over-indebtedness through the delivery of the Parents Guide to Money, it may not appear to *improve* financial capability but it may prevent a dip in the ability to make ends meet. Without a control group, the evaluation may wrongly assume that the scheme has had no impact. Clearly, in this instance we know that there is a likelihood that the control group may exhibit a worsening situation, but this is not always something that we could predict; such deterioration could be related to an unexpected change in economic climate, or (as yet) unidentified triggers.

Evaluations of initiatives aimed at children would benefit enormously from the inclusion of carefully selected control groups, particularly if the evaluation covers more than a single term. We know that children are constantly maturing and learning. Over the course of a school year their analytical skills, numeracy and general knowledge will have increased, and their self-confidence may well have improved. Any of these differences might increase financial capability scores over the period being studied, but those scores could not realistically be attributed to a class in personal finance.

Confounding factors

A control group increases the extent to which changes in financial capability can be safely attributed to a particular scheme or initiative because it is possible to identify any changes amongst those who do not receive the training. If it is impossible, or impractical to identify a suitable control group (as it would be with a compulsory programme) it is worth recording any information about possible confounding events. For example, evaluations of workplace seminars aimed at increasing saving for retirement should record information such as the dates of pay rises, the timing of pension updates, and news of redundancies or relocations.

Time-frame and historical information

Evaluations need to take into account the time-frame within which a project might be expected to meet all of its objectives. Some outcomes may be visible immediately, such as an increase in knowledge. However, behavioural change, and knowledge retention can only be tested over a longer period. Not recognising the likely period needed for change could result in false conclusions. For example in England we anticipate that students who gain 'A' level qualifications will ultimately secure higher incomes. However, if we were to test this after two or three years we would almost certainly find that the qualifications have resulted in the uptake of student loans and a period of very low incomes, rather than the higher incomes anticipated.

There are further difficulties when identifying changes that happen over a long period of time. For example, if we undertook a survey of adults today to discover how their behaviour was related to financial education received in childhood, we would need to rely heavily on such factors as respondents' own memories of their schooling, and on the assumption that the findings are still relevant in today's economic climate. We would also need to consider whether it is realistic to assume that information or education provided in the 1980s would enable a 40 year old to make

better decisions when choosing financial products or making financial decisions at the end of the first decade of the new millennium.

Ex-post evaluations

It is not uncommon for academics and evaluators to attempt to measure the impact of an event, scheme or project after it has occurred. Just as there is some value in understanding how a stock-market crash has affected consumers, so there is some expected value from knowing whether a change in education policy had a marked impact on qualifications or retention. Financial capability strategies can also be evaluated after the event, providing that there is robust data available, and that appropriate techniques are employed. These are likely to include statistical (possibly longitudinal) analyses. If this approach is being considered, it is beneficial to identify people who did not receive the initiative under scrutiny, to provide a counterfactual.

The implementation of baseline surveys of financial skills will make it easier for such evaluations to take place in the future, because the baseline will provide a 'before' measure from which to assess progress and the follow-up survey has the potential to identify those who have since received financial education. It is clearly important to ask future participants to list the financial information advice and education that they have received since the baseline was measured, in order to identify patterns in relation to the types of initiatives being tested.

Comparative studies and generalising from results

A further complication of evaluation design may arise if we seek to evaluate different projects that have (approximately) the same aims. How does an increase in financial capability amongst working-age adults equate to an increase in capability amongst school children? How do we compare these outcomes? It may be possible to learn something about the ways in which a particular method of delivery impacts on different learning outcomes, or identify how the delivery should to be changed to meet the needs of a particular client group, but it is not necessarily possible to generalise from specific studies to inform our expectations of other initiatives.

4.1.3. Reporting evaluation results

Just as there is value in using standard methodological tools for evaluating financial capability initiatives, there would also be considerable value from having a standard report structure that provides key information. In particular we suggest that the evaluation report should:

- identify the aims and objectives of the strategy being investigated;
- briefly describe the design process and background of any materials or courses used;
- describe the general skills and backgrounds of staff/facilitators delivering the course;
- identify the time period that the initiative ran over, the cost of it, who funded it and whether it has continued funding;
- describe the development process and design of the research tools (surveys, discussion guides etc) in relation to the aims and objectives set out above;
- report sampling methods and sample sizes, along with information about any biases introduced and analysis of non-responses, weighting, control groups and before and after tests;
- discuss the likely impact of known confounding events (such as pay rises within the workplace or interest rate increases); and
- report process findings and outcomes clearly, with adequate explanation of the analysis used, the assumptions made and the caveats necessary.

It is also important to consider how the outcome measures will be reported. For example, in the UK we do not report financial capability as a single score, but as five separate scores, relating to different aspects (or domains) of capability. The five separate scores provide information about strengths and weaknesses that would be lost with a single measure.

Whilst it is often better to have several indicators than a single one, it makes little sense to sub-divide results from a large number of questions without applying some logic or theory to the process. This could be as simple as sub-dividing questions according to the week in which they were taught, or the chapter they were included in, or it could relate to exploratory data analysis. Any of these approaches will provide additional value at little extra cost.

Even when evaluators are certain that they can combine the results from a large number of questions to give a meaningful overview of the respondent's capabilities they could still employ some kind of exploratory analysis to understand how the questions are related and use this to cut down the number of questions used in future surveys, thus simplifying the testing process and reducing the overall cost of evaluation.

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