Developing Children and Young People's Financial Capability

A Review of the Evidence

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2.1. About this report

The aim of this piece of work was to update the 2018 evidence review commissioned by Money Advice Service (the predecessor organisation of the Money and Pensions Service, MaPS). This report provides a synthesis of evidence generated since the publication of the previous evidence review in 2018 about what works to build children and young people's financial capabilities, with a focus on delivering financial education in the home, in educational settings and in the wider community.

The purpose of the evidence review is to support MaPS' understanding of recently published evidence in this area. It will be used to help MaPS promote 'what works' to those who fund and/or deliver financial education across the UK, so that interventions for children and young people can have the greatest impact, and support progress towards the Financial Foundations national goal of the UK Financial Wellbeing Strategy. MaPS will also use this review to identify gaps in the evidence base, which MaPS and others can work towards filling.

To support this understanding, we have followed and extended a taxonomy of the types of approaches that exist (used in the previous report), and have gathered, analysed and interpreted the evidence into the same consistent framework, providing continuity with the previous evidence review. The outcome of this analysis is an updated and extended Evidence Map that provides a visual synthesis of the evidence (including the strength of the evidence) and the gaps remaining.

2.2. The evidence base

Since the previous evidence review was conducted in 2018, the quantity and quality of the evidence generally has increased, but is not consistently strong across all areas. In some specific areas there is now a body of consistently strong evidence of what works, in other areas the evidence is more mixed and in others it is still emerging. The Evidence Map and the discussion of key themes makes this explicit.

We have drawn on a range of evidence including interventions that have been tested, as well as wider research and insight, within the academic and grey literature to add further context. We also include interventions that show promising practice, but may not yet offer conclusive evidence of impact. Through the course of the review, we collected around more than 300 separate pieces of evidence relevant to this study, including academic papers, delivery providers' own research, data analysis, policy papers and thought-leadership pieces. Only 51 of these involved tested interventions and formed the evidence for the Evidence Map. The wider research has been used to inform the discussion, where relevant. These 51 pieces of evidence were categorised on the basis of three key factors - the characteristics of the intervention, the outcomes delivered, and the robustness of the evidence gathered - and are displayed in the Evidence Map. The Evidence Map provides a visual, succinct way of presenting the scope, strength and applicability of specific interventions and highlights the areas where the evidence base is most strong and consistent as well as exposing where gaps remain.

Overall, the evidence landscape shows:

- Mainstream educational contexts continue to dominate, followed by community contexts (mainly targeting adolescents and young people transitioning to adulthood as well as vulnerable young people), with financial education in the home featuring much less.
- Secondary school age young people continue to feature as the key targets of tested interventions.
- However, there is a noticeable increase in interventions aimed at young children (under the age of seven years)
- Face-to-face, classroom/workshop style formats continue to dominate.
- There is a noticeable increase in the number of interventions testing teacher training approaches.
- There has been a noticeable increase in interventions aimed at supporting parents.

- There is a noticeable increase in interventions aimed at vulnerable young people.
- There were a small number of studies that focused on digital delivery/apps, evidence of the impact of this is still emerging.

2.3. Key Themes

The previous evidence review identified 10 themes. From the evidence reviewed since 2018, we have been able to update and extend the themes, noting specifically the key differences or changes since the 2018 review in terms of what works in building children and young people's financial capability.

These recurrent themes now provide a clear indication of successful ingredients for effective programmes for building children and young people's financial capability. Within these themes, there are clear indications of consistently effective practice that could be mainstreamed, opportunities to scale-up examples of good practice, and areas where evidence is still lacking or mixed and where further research could usefully be directed. Based on this analysis, we highlight the opportunities for mainstreaming/scaling up interventions and consider a blueprint for future programmes. We have also identified areas where more research is required.

There is continued strong and consistent evidence that points to the following:

- **The effectiveness of training for practitioners working in building financial capability.** The evidence is consistently effective across a wide range of practitioners including teachers, practitioners working with parents, and practitioners working with young people in the community. Previous evidence largely focused on expert-led training. There is now evidence of the effectiveness of a range of different approaches to delivering training (including expert-led, teacher-led and e-learning), although not all training approaches have been tested in all contexts or necessarily work for all types of practitioners. Effectiveness of training is enhanced by the provision of high quality resources (i.e., quality-checked).
- **The impact of workshops and classroom formats** (mainly face-to-face) on financial capability outcomes of children and young people, specifically ability (understanding the role of money, money management and understanding financial products and concepts) and mindset (particularly confidence and attitudes to money).
- **Experiential or active learning enhances skill development and reaches further into behaviour change.** There is consistent and replicated evidence (across age groups and different educational settings) of the effectiveness of experiential learning and learning-by-doing approaches on ability and mindset, with the most effective interventions positively impacting behaviour change.
- **Timing and context** can amplify the effectiveness of financial capability interventions. Capitalising on teachable moments and key transitions, when young people are most receptive to learning about money management, with "just-in-time" financial education, enhances the relevance and increases the likelihood of effectiveness of the intervention.
- **Supporting parents** increases their awareness of their role in their children's financial capability and positively influences parents' behaviour with regard to parental teaching about money. Parental involvement has a positive impact on their children's mindset, connection and behaviour, specifically increasing conversations with their children about money, and increasing children's exposure to and handling of money.

In contrast to previous evidence, more recent evidence now confirms:

- That **financial education interventions positively impact both knowledge and, to a lesser extent, behaviour.** This contrasts with earlier evidence that reported financial education interventions had a negligible impact on financial behaviour in particular. Earlier evidence also suggested that the effects of financial education decayed over time. There is a lack of evidence to support or refute the long-term effects (12 months or longer), but there is now robust evidence, on average, of sustained impacts at roughly seven months following financial education interventions (particularly in school-based settings).

Since the last review, evidence has grown in the following areas, and shows areas of promising practice, but overall lacks consistency or coherence:

- While evidence consistently highlights the importance of early childhood financial capability interventions, there was previously a lack of evidence pointing to what works for very young children. **Emerging evidence now points to what financial capability looks like for very young children (under the age of seven years)** and how to support it, including the potential of story-based approaches for both developing and measuring financial capability of very young children. Direct evidence, though, from very young children (under the age of seven years) is still limited.
- **The potential for technology to support financial capability.** There is emerging evidence of the positive role of technology in delivering online training for practitioners, in delivering online learning to children and young people, and in supporting experiential learning via simulations and games. To date, much of the evidence points to short-term gains in knowledge rather than behaviour change, and warrant further research. Given the widespread adoption of pocket money apps, evidence of the effectiveness of these remains lacking.

Theme 1: Train-the-trainer approaches are effective at improving the quality of financial education and building children and young people's financial capability

Theme 2: Workshops and classroom formats enhance ability and mindset

Theme 3: Experiential or active learning enhances skill development and reaches further into behaviour change

Theme 4: Parental involvement influences children and young people's mindset, connection and behaviour

Theme 5: Timing and context amplify the effectiveness of interventions and remain important in influencing behaviour

Theme 6: The role of cognitive factors is important in downstream financial behaviours

Theme 7: The earlier the better – interventions at a young age can positively enhance financial capability

Theme 8: Financial education affects both knowledge and behaviour, and is resistant to decay in the medium term

Theme 9: Some mainstream interventions, particularly digital, are still not well evidenced

Theme 10: Consideration of return-on-investment of financial education interventions is growing, but still largely lacking

Theme 11: Developing the financial capability of vulnerable children and young people requires tailored approaches and flexibility

- **There is emerging evidence of what works for vulnerable children and young people.** Emerging evidence points to three factors that appear to contribute to the success of individual initiatives: The need for flexibility to the often-challenging life circumstances of vulnerable young people; the importance of the relationship with those delivering the training, including peer support; and, incorporating financial education with other activities rather than delivering it as a standalone training event.

- While there is still a lack of routine assessment of **the return on investment of financial capability programmes**, emerging evidence points to key elements that might usefully be included, such as cost-effectiveness (where programme costs are expressed in relation to treatment effects), as well as an assessment of the wider social and economic impacts, where relevant.

2.4. Opportunities to mainstream/scale-up

Taking into account evidence from this review and the previous review, of consistently positive impact, we identify several opportunities for wider scaling up and mainstreaming.

1. **Train-the-trainer approaches** – Evidence of train-the-trainer approaches is consistently effective with a range of practitioners, yet access to training opportunities is not universally available. There are different types of training approaches, with expert-led training potentially the most costly and most difficult to scale up, but may be relevant in specific circumstances (for example, practitioners supporting vulnerable young people). In more mainstream contexts, there are opportunities to scale-up up via online or e-learning approaches, potentially considering a MOOC[i] model. Train-the-trainer approaches tested thus far have focused on initial training. There are opportunities to consider refresher training, or differentiated training according to practitioner experience.
2. **Supporting parents** – There are opportunities to scale-up parenting interventions, building on the effectiveness of Talk, Learn, Do (TLD). Evidence suggests opportunities to explore a differentiated approach to TLD that takes into account differentiated content level and delivery mode (both embedded and stand-alone) catering to the differential needs of parents. Scaling up to the next level will involve identifying key delivery partners with established networks with access to parents.
3. **Experiential learning** – There are opportunities to encourage greater use of experiential, practical, hands-on learning as part of funded financial education programmes. Guidance on developing an effective financial education experiential learning opportunity might help to expand take-up and also help to target the effectiveness of experiential learning on behaviour change.
4. **Return on investment** – Return on investment analysis should be mainstreamed in all commissioned/funded financial capability interventions. To support such analysis, guidance is needed to help organisations understand what should be included and how to support it.

2.5. Blueprint for future programmes

Taking into account the insight from both this review and the previous evidence review, we observe a number of characteristics of successful financial capability programmes. These key ingredients may serve as a blueprint for organisations seeking to develop, commission or evaluate financial capability programmes.

- **Mapped to a framework or curriculum** – Linking or aligning financial capability programmes with broader frameworks/curricula (e.g., MaPS frameworks or national education curricula) ensures appropriateness, validity and efficacy.
- **Delivered by trusted, appropriately skilled practitioners** – Those delivering financial education need to be skilled/trained for maximum effectiveness and resources supporting the training or professional learning quality-checked.

[i] Massive Open Online Course is usually a free online course that operates at scale via one of several EdTech platforms (such as FutureLearn, edX or Coursera). Courses typically run for a set period and have some form of moderation, opportunity for peer interaction, and include an option of certification (usually paid for).

- **Differentiated/tailored** – Taking into account the age and needs of young people at different stages as well as their ability and stage of cognitive development.
- **Including experiential opportunities** – With a focus on gaining relevant, practical, hands-on experience (either real world or simulated) that develops key skills in handling money, engaging in decisions, exposure to risk and planning ahead.
- **Involving parents/families** – Recognising the importance of parents and families in early childhood financial capability, programmes should seek to involve parents (such as in homework tasks) and encourage greater child/parent interaction.
- **Designed with outcomes in mind** – To have the greatest effect, financial capability programmes need to be clear about the ability, mindset, connection and behaviour outcomes they are aiming to affect. Programmes that have limited or no effect on behaviour often do not specifically target a behaviour change.
- **Prepare young people for the longer term** - Interventions that only tackle short-term knowledge acquisition may have limited usefulness as knowledge needs to be updated over time. Programmes that also address mindset outcomes (such as resilience, self-persistence, self-control, self-efficacy, problem-solving) are equipping young people with the ability to cope into the future. There is also benefit in addressing awareness of cognitive biases that can limit the impact of rational understanding.
- **Include evaluation** – There is a need to test the effects, ideally over the longer term as well, as some of the behaviour effects may not be detected in the short-term.
- **Are cost-effective and scalable** – In mainstream educational contexts, in particular, cost-effectiveness and scalability are relevant. Scalability may not be a goal in non-mainstream and specialist contexts, particularly among vulnerable groups, where tailored and flexible approaches may be needed. However, the cost of the programme relative to its effects need to be understood.

2.6. Areas for further research

During the course of the evidence review, we identified a number of gaps in existing evidence where further research usefully could be directed:

- **Longitudinal research** – Few studies track behaviour over the longer-term. There is a need for longitudinal research that tracks the impact of childhood factors over the longer-term, to understand the longer-term impacts.
- **Digital apps** - Despite the widespread adoption of pocket money apps, there is still a lack of evidence of the effectiveness of them in children and young people's financial capability. While some evidence exists of the effects of budgeting apps and gamified approaches to financial education, research is needed specifically focusing on digital pocket money apps and the extent to which they improve financial capability in young people, also into young adulthood.
- **Focus on young children** – Despite the increase in interventions aimed at young children, few studies have directly gathered evidence from them directly. Many of the studies focus on parents and involve parent or teacher perceptions of changes in young children.
- **Cognitive biases** – Given the importance of cognitive factors in driving financial capability, it is surprising that few studies have explicitly measured the outcomes of self-control and perseverance among children and young people. Moreover, there is a need for research to help understand the extent to which financial capability programmes can improve awareness of cognitive bias and minimise their impact on behaviour.

3. Introduction and Background

The Money and Pensions Service (MaPS) has a statutory duty to develop and coordinate a national strategy to improve the financial wellbeing of children and young people. The UK Strategy for Financial Wellbeing was launched by MaPS in 2020 with a goal to transform the UK's financial wellbeing. The strategy established five 'agendas for change', one of which, 'Financial Foundations' focuses on enabling more children to obtain a meaningful financial education, so they can make the most of their money and pensions in the future. Each agenda for change has a national goal which, for Financial Foundations, is that 2 million more children and young people (CYP) receive a meaningful financial education by 2030. The national goal is not just dependent on MaPS' activity but also requires action from all those who can influence financial education learning. This includes central, devolved, local Governments, public services, the third sector and financial institutions.

To support its statutory duty, MaPS has undertaken research and delivered interventions in the CYP space to build and promote a robust evidence base for those who can influence the financial education of children and young people, whether at home, in educational settings or in the wider community.

1.1 Context

In 2018, the Money Advice Service, one of the legacy bodies of MaPS, commissioned a review of the evidence to understand what works in developing financial capability for children and young people. The review helped to inform a set of Commissioning Plans at the time, aimed at supporting financial education provision where it was most needed to develop children and young people's financial capability. Since 2018, MaPS has commissioned xxx projects in the CYP space.

The main purpose of this review is to update and build on MaPS' previous evidence review, 'Developing Financial Capability in Children and Young People' carried out in 2018, by synthesising evidence generated since then on what works to build Children and Young People's financial capabilities. This work will support understanding of recently published evidence in this area and help MaPS promote 'what works' to those who fund and/or deliver financial education across the UK – so that interventions for children and young people can have greatest impact and support progress towards the Financial Foundations national goal. The review will also add to MaPS' own evidence base to inform future funding decisions by MaPS, including the funding of delivery projects and research to fill gaps in understanding.

1.2 Review Aims and Scope

The main aim of this piece of work is to update and build on MaPS' 2018 evidence review, by synthesising evidence generated since then about what works to build children and young people's financial capabilities.

The review explores the following questions:

1. **What does new evidence and insight tell us about what works in building CYP financial capability?** With a focus in delivering financial education in the home, in educational settings, and in the wider community (for example for children in vulnerable circumstances)? And with reference to the themes explored in the 2018 review.
2. **Is there evidence to suggest that financial education needs and/or issues have changed over the last 5+ years**, for example around digital payments/transactions, understanding about financial risk like fraud/scams? And is there any evidence about what interventions help to build CYP financial capability in these areas?
3. **What are the key strengths and weaknesses in the evidence base about how to improve CYP financial capability?** Again, with reference to the 2018 review and noting where the evidence base has grown since then.
4. **What are the main sources of evidence about building CYP financial capability?**

1.4 About this Report

This report is divided in a number of sections. The following section (section 2) provides an overview of the evidence landscape and the evidence base used to inform the analysis and conclusions made within the report. Section 2 also details our approach to sourcing and reviewing the evidence. Section 3 discusses the Evidence Map and how it was developed, including the taxonomy used to classify the sources of evidence. This section also makes a number of observations about the state of the evidence, in particular focusing on how the evidence has changed since the last review. Section 4 discusses the key themes arising from the evidence review. Eleven key themes are identified and each one discussed in turn, with illustrative examples. The final section, section 5, offers conclusions and recommendations for effective programme design, also noting opportunities for mainstreaming or scaling up and identifying areas where evidence is still lacking or inconclusive and where further research is needed.

2. The Evidence Landscape

Since the previous evidence review was conducted in 2018, the quantity and quality of the evidence generally has increased, but this is not consistent across all areas. In some specific areas there is now a body of consistently strong evidence of what works, in other areas the evidence is more mixed and in others it is still emerging.

A significant number of the recent interventions have been affected by the Covid-19 pandemic. In most cases, this has reduced the sample sizes on which the evidence is based. We have drawn on a range of evidence including interventions that have been tested, as well as wider research and insight, both within the academic and grey literature to add further context. We also include interventions that show promising practice, but may not yet offer conclusive evidence of impact.

2.1 The Evidence Base

While the evidence base has grown since the last review, it is still limited in some respects. Very few of the studies involve a randomised controlled trial approach, few have any kind of control or comparison group and most rely on convenience / self-selecting samples. That said, where there are a couple or more different studies testing the same or similar interventions with different samples, this does provide an opportunity to triangulate findings.

Through the course of the review, we collected more than 300 separate pieces of evidence of potential relevance to this study, including work commissioned by MaPS, delivery providers' own research, survey data and analysis, insight papers, research reviews, consultation and policy papers, and academic papers. Fifty-one of these were identified as interventions that were used to construct the Evidence Map, with the rest used to supplement the development of themes and add wider context and insight.

2.2 Our Approach

We followed the following steps in our review:

1. **Formulation of research questions:** The process began, in discussion with MaPS, with refining the broad research question into a series of sub-questions related to financial education in the home, educational settings and wider community. This helped to tease out who is involved (teachers, parents, carers etc.) and in what way, and helped to identify key words for the next stage.
2. **Locating relevant evidence:** MaPS helpfully identified a range of sources as a starting point for the review. In addition, we conducted our own search for relevant evidence that involved establishing key search terms and inclusion criteria and applying these to databases of academic papers, grey literature; and other secondary sources from research agencies, charities, think tanks and other similar organisations.
    a. <u>Search terms.</u> A key stage in a review is defining the correct search terms to ensure the most relevant sources of evidence are identified. The previous review employed the following key search words: 'children' and/or 'youth' + 'financial capabilities' or 'financial

education' or 'personal finance' or 'financial literacy'. We refined these by adding in further contextual search terms, such as 'school', 'home' 'care' and also included search terms for key financial educational agents such as 'teacher', 'parent', 'family', 'carer'. This is not an exhaustive list. To counteract incomplete keyword searching we also browsed the lists of journals / publications / organisations known to publish research with a focus on financial education and young people and also searched the reference lists of key papers identified, thus employing a snowball method.

b. Use of databases and other evidence sources. Having identified the search terms, we applied these to databases and evidence hubs to identify and locate relevant sources. We used several databases of academic studies available to us (including Web of Science, Scopus). Additionally, Google, Google scholar and government databases were explored. We also directly searched evidence from Universities known to conduct research in this area (e.g., Bristol University's Personal Finance Research Centre, Birmingham University's CHASM), Charities delivering financial education (e.g. Young Enterprise, MyBnk, the Money Charity), financial institutions (e.g. NatWest), and other organisations including think tanks, Local Authorities and public sector bodies. We also searched the MaPS Evidence Hub and website.

c. Initial inclusion/exclusion criteria – The inclusion criteria included:

   i. Evidence published since 2018 that had not been included in the last review.

   ii. Evidence focusing on financial education in the home, in educational settings and in the wider community (including children in vulnerable circumstances).

   iii. Evidence relating to children and young people aged 3-17 years (although we relaxed the upper limit to take into account a small amount of studies focusing on vulnerable young people aged 16 plus)

   iv. Publications had to be in English, but we did not restrict the search to studies only in the UK.

   v. We did not restrict the search to only peer-reviewed outputs as this would exclude a potentially wide array of industry-based studies and reports.

   vi. We did not restrict inclusion to any particular type of study, either qualitative or quantitative, but we did exclude conceptual studies and commentaries that did not contain empirical evidence.

3. **Evidence selection:** The selection of evidence studies for review took the following process: titles and abstracts were identified for initial screening, full copies of relevant papers were retrieved and assessed for eligibility; supplemental studies were identified from reference lists; final set of studies were selected for detailed review.

Only interventions were used to build the evidence map. Whereas the wider literature base identified was used to provide additional insight and context in discussing the themes.

Mapping the interventions onto the Evidence Map involved the same three-stage process used in the previous review: 1. Categorising the intervention according to a defined taxonomy (relating to the setting, delivery method and participant age); 2. Categorising the outcome delivered by the intervention according to the MaPS Children & Young People Outcomes Framework (relating to four key outcomes - Ability, Mindset, Connection and Behaviour); 3. Categorising the evidence against an evidence framework (indicating the level of robustness associated with the evidence gathered).

4. Evidence Map

We used the evidence to build an Evidence Map. An Evidence Map offers a means of visually representing the scope and strength of interventions designed to improve children and young people's financial capability. It highlights where the evidence is strongest and most consistent and also identifies gaps where evidence is missing or inconclusive. We follow the format used in the previous evidence review. The evidence map below shows the evidence published since 2018 only. The Appendix contains a consolidated evidence review map combining the evidence map from the previous review and the evidence from this review.

4.1. Interpreting the Map

Consistent with the previous evidence review, the Evidence Map shows the following dimensions:

Outcomes – Interventions are categorised according to the outcomes reported in the studies. We use the Money and Pension Service's Children & Young People Outcomes Framework to map the outcomes against. Studies do not always report the outcomes consistently, or report them against this framework, so there is the possibility that we have under-reported the outcomes because they may not always be obvious. It is possible for an intervention to map onto more than one outcome.

Interventions – Interventions are categorised according to the age of children and young people and the delivery method. We identify three broad age bands: preschool and under seven; primary age (5-11); secondary age (12-17). The preschool and under seven age group has been added to incorporate new interventions aimed at young children under seven. There is an overlap with the younger end of the primary category. The delivery modes are the same as those used in the previous review, with the expansion of the 'Games / App' category to also take into account 'Digital / Story' approaches, and the addition of a 'Training Parents' category to recognise parenting interventions aimed at parents as distinct from the interventions aimed at children via parent / intermediary.

Evidence - The circles on the Evidence Map indicate both the volume and robustness of the evidence. Larger circles reflect a larger number of studies within a given area. The colour of the circles indicates the robustness and consistency of the evidence. The darker the colour, the more consistently effective the evidence. Robust and rigorous evidence may come from a single or small number of studies (e.g., using a control or comparison group or robust pre-post analysis, and/or reasonably large and representative sample sizes), or may come from triangulating evidence from multiple studies.

Where there are no circles on the map, this generally means we have not been able to find any evidence or a study has not explicitly reported evidence against a particular outcome. This suggests a potential lack of evidence in areas where there are no circles. All studies referenced in the Evidence Map can be found in Appendix 1.

To enable continuity, the categories of evidence used in the map, are the same as those used previously, and are shown below:

Consistently Effective – The programme or practice has been rigorously evaluated and has consistently been shown to work	
Evidence of Effectiveness – The programme or practice is based on sound theory informed by a growing body of empirical research	
Promising Practices – Innovative and informed practices that have a clear and logical foundation. Some positive findings, but the evaluations are not consistent or rigorous enough to be sure.	
Emerging – A programme or practice that has not been tested yet or where outcomes of interest are unknown	
No Effect – A programme or practice that has been tested and has no effect on outcomes of interest	

4.2. Evidence Map Observations

Looking at the Evidence Map, a number of observations can be made about the status of research for developing financial capability for children and young people, and how evidence has shifted over time since the previous review in 2018. A number of trends are noticeable in the evidence published since the previous review was conducted in 2018.

- **School and community contexts dominate** – As noted in the previous review, school contexts continue to dominate as a key delivery channel for financial capability interventions (making up 19 of the 51 interventions in the Evidence Map), consistent with financial education provision mapping.[1] Also noticeable in the evidence since 2018 is the number of interventions taking place not in mainstream school settings, but in the wider community (some 15 out of 51 interventions). The majority of these are aimed at young people aged 16 plus, and also include a focus on marginalised and vulnerable groups. It is not surprising that schools remain popular as a key context for financial capability, given the ability to reach a large number of young people and deliver interventions at scale. The continued dominance of school contexts goes hand-in-hand with strengthened support and professional development for teachers in delivering financial education.

- **Focus on secondary school age** – Most of the interventions in the Evidence Map (32 of the 51 interventions) are targeted at secondary school age children (aged 12-17), which is consistent with the previous evidence review findings. However, not all of these are in school settings. A number of the interventions aimed at post-16 young people (approximately 13) took place in community settings. Not including those interventions that took place in community settings, the number of interventions aimed at primary and secondary school children (specifically in school settings) is fairly evenly matched (13 primary, 19 secondary). The evidence base for primary school children has increased since the previous review.

- **Face-to-Face interventions still prevail** – Face-to-face interventions are still common, especially in school settings. Consistent with the previous evidence review, there is still less compelling evidence of the impact of classroom based face-to-face interventions with young children. By contrast, parental interventions feature more strongly among younger age groups (see parental interventions point below). Among older ages (post-16), peer approaches also seem effective in face-to-face settings. A number of the interventions that took place during the Covid-19 pandemic adapted in-person face-to-face workshops to virtual face-to-face delivery, with varying success depending on the target audience. In some cases, this led to an increase in accessibility, but proved challenging in cases where digital access was limited or when dealing with young people in challenging or vulnerable circumstances. Classroom-based interventions show consistently strong outcomes in ability and mindset, with some evidence of reach into behavioural outcomes (managing money day-to-day). Workshops in community settings with older young people (post-16) appear to be more practically-focused with a stronger link to behavioural outcomes.

- **Increase in teacher training and support** – Train-the-trainer approaches continue to be effective. In contrast to the previous review, that highlighted mainly (non-teacher) practitioner training, there is a noticeable increase in the number of interventions that include professional learning for teachers or resources aimed at enabling teachers to deliver more effective financial education (a total of seven out of 41 interventions since 2018). This is not surprising given evidence highlighting the lack of confidence of teachers and the desire for training.[2] Evidence shows that teacher training and support for teachers is leading to increased confidence for teachers in teaching financial education and key outcomes for young people including improved knowledge, attitudes and some behaviours.

- **Increase in parental interventions and support** – There is a noticeable increase in interventions aimed at supporting parents to talk to their children about money (nine studies out of 51). Most of these are aimed at parents of primary age children and children specifically under the age of seven. Parental interventions generally feature more strongly among younger age groups with a noticeable gap in parental interventions among secondary age young people. Recent evidence focuses mainly on the impact of the interventions on parents of young children, with less evidence directly from young people. Parental interventions, along with learning by doing, seem to have the greatest potential to bring about behaviour change in children and young people.

- **Increase in focus on children under seven** – Along with an increase in interventions aimed at parents, is an increase in interventions including children under the age of seven, both in school and home settings. Four interventions focused on children under the age of 7, which fills a gap noticed in the previous evidence review.

- **Increase in visibility of interventions for vulnerable groups** – There is a noticeable increase in the number of interventions targeting vulnerable young people (nine studies out of 51). Such studies are often very specific to the nature of the vulnerability, but there is a cluster of studies focusing on older young people (16 plus) in non-mainstream settings and those transitioning into independent living.

- **Learning by doing and skills development increase behaviour change** – Interventions reporting behaviour change outcomes are most likely to be based on experiential learning by doing interventions and interventions that involve some direct skills development, rather than interventions that focus on knowledge and understanding alone. Evidence of these exist in school settings, community settings and in parental teaching. There also appears to be a link between the timing of the intervention and behaviour change. Learning that can be put into practice in the short-term is more likely to lead to follow-through in behaviour. It is perhaps not surprising that interventions aimed at young people at key transition points (between primary and secondary, and leaving school) appear to show the strongest behaviour outcomes.

Notwithstanding the trends noted, there remain some key gaps in the evidence. Some gaps are persistent gaps since the previous review:

- **Many studies are preparing young people for short-term rather than longer-term** - Behaviour changes are the ultimate goal in financial capability interventions. The outcomes framework identifies three key behaviour outcomes: managing money well day-to-day, preparing for and managing life events, dealing with financial difficulties. The number of interventions that are impacting managing money day-to-day has grown since the last review, which is positive. There is also evidence to suggest (Theme 8) that behaviours also persist into the medium term at least. However, there is still an absence of evidence of interventions equipping young people to prepare for and manage life events and deal with future financial difficulties. Managing money day-to-day is arguably a necessary foundation for financial capability which perhaps also explains the focus on this in outcomes testing. Preparing for and managing life events and dealing with financial difficulties may only be possible once individuals can manage their money effectively day-to-day. The outcomes need to be relevant to the context and stage of the individuals, which may mean that in many cases managing money day-to-day is the most relevant outcome for young people at that point in time, or is the only feasible outcome that can be measured in the short-term, since most outcomes are measured soon after the intervention.

- There are potential challenges associated with measuring financial behaviour change in general and specifically among children and young people. Interventions may not necessarily lead to behaviour change, especially if there are opportunity or resource constraints, which are likely to affect children and young people more than adults.[3] Behaviour change may not occur because individuals are already behaving optimally. Changes in financial behaviour among children and young people are difficult to observe, since they do not engage in a wide range of financial behaviours. For very young children, relevant behaviour change may be only short-term, such as engaging more in conversations about money.[4] Comparing behaviour outcomes between very young children, older young people and adults even may not be realistic, and should take into account the developmental stage of the child and expected financial behaviour. Moreover, behaviour change for older children (such as dealing with life events and financial difficulties) may not be realised until (early) adulthood, which requires longitudinal studies to track the longer-term effects of interventions as children age.

- **Few studies track behaviour over the long-term** – Linked to the above, there are very few studies that track the impact of interventions on behaviour over a long time-period. Many of the studies are measuring outcomes at roughly three months after the intervention, which is likely to influence the type of behaviour outcome tested at this point (i.e., a tendency to focus on managing money rather than planning ahead for future life events). A very small number have tracked outcomes a year later. There is a need for further research that measures outcomes at longer future intervals and also longitudinal research that tracks changes in the same population over time.

- **The mindset outcomes of self-control and perseverance continue to be less well served** – Consistent with the previous review, self-control and perseverance feature less in mindset outcomes measured than other mindset outcomes such as self-confidence, attitudes to money and, to a lesser extent, aspirations and goals. There is a noticeable increase in a small number of parental interventions that appear to focus on self-control, specifically needs and wants and delayed gratification among young children. The lack of focus on self-control and perseverance potentially reflects the dominance of classroom based financial education where the Evidence Map shows a clear focus on understanding money management and understanding financial concepts and products.

- **The outcome of connection is less well served** – Overall, connection features lower compared to ability and mindset and even behaviour (specifically managing money day-to-day). Where it does feature, it is largely in relation to parental interventions (where parents have a key role to play in providing access to money and financial products) and in relation to experiential learning (where young people may be involved in hands-on activities involving raising or spending money). As in the previous review, managed exposure to risk did not feature explicitly in any of the interventions. Whilst many of the classroom based financial education programmes do focus on risk and reward and fraud as specific topics, they tend to be approached from a knowledge and understanding perspective, rather than enabling young people to experience risk. It is more difficult to deliver programmes for children and young people that deal with exposure to risk. Games and simulations offer some potential in this area. Despite there being many games and apps aimed at children that claim to improve financial capabilities, the research on these is still very limited and has not changed significantly since the previous review in 2018.

- **Limited research focusing on counselling/advice** – This was also reflected in the previous report and has not changed too much, continuing to show a lack of research specifically for young (infant/junior school age children). This is perhaps not surprising that counselling/advice is not being aimed at young children. The few studies that were identified were mainly targeting (16 years plus) young people, largely in non-mainstream settings and showed evidence of effectiveness in ability (specifically knowledge and understanding), mindset (confidence) and behaviour (managing money day-to-day).

- **Limited research focusing on digital payments/transactions despite the explosion of this in recent years** – We might expect that financial education needs and or issues included in financial education may have changed in recent years, with the increase in reliance on digital/cashless approaches and the increased prevalence of online fraud/scams. There is some evidence of this content featuring in school-based financial education and teacher training, but on the whole many studies are not explicit about the content of their programmes. Despite mobile apps being the main method of banking (for adults), there is still a gap in research that helps to understand the impact of digital apps on financial capability.

Money & Pensions Service

Consistently Effective	
Evidence of Effectiveness	
Promising Practices	
Emerging	
Found to have no effect	

1 Study	
2 Studies	
>3 Studies	

Interventions		Outcome															
		Ability (A)						Mindset (M)					Connection (C)		Behaviour (B)		
		a) Problem solving	b) Literacy	c) Applied numeracy	d) Understanding role of money in society	e) Understanding money management	f) Understanding financial products & concepts	g) Self-control	h) Perseverance	i) Self-confidence	j) Aspirations & goals	k) Attitudes to money	l) Managed exposure to risk	m) Exposure and access to appropriate financial products & channels	n) Managing money well day-to-day	o) Preparing for and managing life events	p) Dealing with financial difficulties
Pre-school (under 7)	1. Face-to-face skills courses/workshops																
	2. 1-1 Counselling / Advice																
	3. Learning by doing / financial products																
	4. Games / App / Digital / Story																
	5. Parent/ carer intermediary																
Primary / Junior (5-11)	1. Face-to-face skills courses/workshops																
	2. 1-1 Counselling / Advice																
	3. Learning by doing / financial products																
	4. Games / App / Digital / Story																
	5. Parent/ carer intermediary																
Secondary (12-17)	1. Face-to-face skills courses/workshops																
	2. 1-1 Counselling / Advice																
	3. Learning by doing / financial products																
	4. Games / Apps / E-learning																
	5. Parent/ carer intermediary																
Other	6. Training Practitioners / Teachers																
	7. Training Parents																

5. Key Themes

The previous review noted ten key themes. From our review of evidence and wider literature published since 2018 we have updated and extended the previously identified themes to eleven.

In some cases, recent evidence has served to strengthen a particular theme, providing stronger evidence of its importance as a key ingredient of effective financial capability programmes. In other cases, recent evidence has provided a more nuanced understanding of the issue. In one of the themes (relating to the impact on financial behaviour) recent evidence contradicts earlier evidence, but in a positive way.

The largely stable nature of the themes identified across this report and the previous report reinforce the importance of several themes as key components of effective financial capability programmes. These can serve as a blueprint for designing and commissioning effective interventions, whilst also highlighting a number of ongoing gaps in evidence where further research could usefully be directed.

For each theme, we include:

- An explanation of the theme and its relevance
- A summary of key current evidence
- An indication of key criteria of effectiveness
- An illustrative case study of proven effective practice, an example of promising practice or relevant quotes.

The following pages provide an overview of each theme.

Theme 1: Train-the-trainer approaches are effective at improving the quality of financial education and building children and young people's financial capability

Theme 2: Workshops and classroom formats enhance ability and mindset

Theme 3: Experiential or active learning builds skills and reaches further into behaviour change

Theme 4: Parental involvement influences children and young people's mindset, connection and behaviour

Theme 5: Timing and context can amplify the effectiveness of interventions

Theme 6: The role of cognitive factors is important in downstream financial behaviours

Theme 7: The earlier the better – interventions at a young age can positively influence financial capability

Theme 8: Financial education affects both knowledge and behaviour, and is resistant to decay in the medium term

Theme 9: Some, particularly digital, mainstream interventions are still not well evidenced

Theme 10: Consideration of return-on-investment of financial education is growing but still largely lacking

Theme 11: Developing financial capability of vulnerable children and young people requires tailored approaches and flexibility

5.1. Theme 1: Train-the-trainer

Train-the-trainer approaches are effective at improving the quality of financial education and building children and young people's financial capability

There is continued strong and consistent evidence that points to the effectiveness of training for practitioners working in building financial capability. Evidence indicates that train-the trainer approaches are consistently effective with a wide range of practitioners including teachers, practitioners working with parents, and practitioners working with young people in the community. There is also evidence of the effectiveness of a range of different approaches to delivering training.

Evidence highlights the importance of training for those involved in delivering financial capability interventions, specifically addressing the lack of confidence and skill expressed by practitioners themselves.[5,6,7] Train-the trainer approaches are effective in two respects. The training enhances the ability of the practitioner to deliver financial education, thus improving the quality of the provision. This, in turn, enables practitioners to deliver relevant, meaningful, and up-to-date content leading to an improvement in the financial capability of young people.

Since 2018, there have been thirteen new studies that have informed this theme. Collectively the studies provide consistent evidence of effectiveness of training for practitioners delivering financial capability to children and young people. While it is not possible to explore in detail the effects of different components of training, it is possible to make some general observations by broad practitioner groups.

For teachers, a range of train-the-trainer approaches have been tried and tested,[8,9,10,11] including expert-led, cascaded teacher-led approaches and e-learning approaches. Training is consistently effective in building teachers' knowledge, confidence and skill to teach financial education.[12,13] Training has the greatest effect on teachers' knowledge, confidence and skill among those with limited or no prior experience of teaching financial education, but is also beneficial for experienced teachers in affirming knowledge and confidence and in exposing teachers to new lesson content.

The provision of resources, such as lesson plans, activities and teachers' guides, enhances the effects of training for teachers.[14] Within the wider research, several studies demonstrate the effectiveness of resources in supporting teachers and schools in the delivery of financial education[15,16,17,18]. Evidence suggests that short-term improvements in confidence from training can persist over the longer-term, and there may be wider benefits for schools in embedding financial education throughout the curriculum.[19] Training teachers in financial education has been shown to improve young people's mindset, ability and (to some extent) behaviour, although evidence of the effect of some types of recent training approaches (e.g., e-learning) on young people remains to be fully tested. E-learning approaches would seem to be both more scalable and cost-effective at scale (Theme 10), but offering a range of training options seems desirable.[20]

Effective Practice Example

The Financial Education Professional Learning for Teachers in Wales Pathfinder tested two approaches to embedding and scaling effective financial education professional learning: (1) a trainer-led approach (where teachers took part in expert-led financial education training and then (as volunteer trainers) cascaded the financial education professional learning to other teachers); (2) an e-learning approach that teachers completed independently at their own pace. The content for both the trainer-led and the e-learning approaches was the same and developed by Young Enterprise.

The professional learning was available bilingually and aligned with the Curriculum for Wales. Educators were also able to access free resources, including a new bilingual Money Mapping teaching resource.

Twenty-three teachers participated as volunteer trainers, 91 teachers participated in the cascaded professional learning delivered by the volunteer trainers, and 62 teachers completed the e-learning module.

The trainer-led approach resulted in a positive and significant increase in knowledge, skill and confidence of volunteer trainers to cascade the professional learning to their peers. Both the cascaded trainer-led and e-learning approaches performed equally as well in terms of increasing teachers' knowledge, confidence and skill to teach financial education to young people. The cascaded trainer-led approach provided the additional benefit of being able to discuss the resources and share practice on how to use them. Teachers reported this aligned with the way they usually worked as communities of practice.

The professional learning had the greatest impact on teachers with low or no prior experience of teaching financial education and on primary teachers compared to secondary teachers. It also widened teachers' knowledge of the scope of financial education beyond numeracy and contributed to a broadening of the context in which financial education takes place.

Whilst both approaches delivered similarly positive outcomes for teachers, the e-learning approach seemed to offer a more cost-effective way of delivering the professional learning at scale.

The effects of the two approaches on young people's financial capability were not able to be fully tested within the timeframe and remain to be explored.

Source: Financial education professional learning for teachers in Wales pathfinder project - Final Evaluation Report. University of Edinburgh Business School. March 2022.

Several recent studies have tested the effectiveness of training for practitioners/professionals who support parents in various capacities.[21,22,23,24,25] These have included training as part of existing parenting programmes as well as more flexible delivery and stand-alone models of delivery, also incorporating either face-to-face or online training (see Theme 4). Evidence suggests that such training consistently improves the knowledge and confidence of practitioners to deliver a financial capability intervention to parents, and increases their knowledge and awareness of the role of parents in teaching their children about money. Online delivery has been shown to offer both benefits (such as increased participation and access from remote areas) as well as barriers (particularly digital barriers where there is a lack of digital access either in the home or workplace). A range of delivery options may therefore be needed to cater to different practitioner and parent needs. Training practitioners leads to an improvement in parents' knowledge and confidence, talking to their children about money at a younger age, and giving children experience of money at a younger age, all of which have been shown to be linked to children and young people's financial capability.[26,27]

For other practitioners, particularly those that work in non-mainstream settings or with vulnerable children and young people, training has been shown to be effective in building practitioners' confidence and making them aware of the financial capability resources and support available for the young people they work with.[28,29] In youth settings (especially post-16), peer-based training approaches seem to be effective (alongside trained practitioners) at building rapport, raising awareness of money matters and changing mindset, providing an authentic voice and relatable experience.[30,31]

Beyond the more specific observations by practitioner group, we observe that train-the-trainer approaches seem to be more effective when they include the following:

1. **Alignment with an existing programme** (national or organisational level), practice or curriculum, which ensures appropriateness, validity and efficacy.
2. **A mix of consistent, core elements, with some degree of flexibility**, allowing practitioners to tailor the delivery content and extend or shorten it to fit the time available.
3. **Accompanying resources, including guides, lesson plans, handbooks**. These are particularly important to ensure appropriate, consistent and up-to-date content is being used.
4. **Ongoing support**, including networks and communities of practice.
5. **Endorsement by relevant authorities, trusted organisations or individuals** (which may or may not be linked to accreditation).

In addition, a review of teacher professional development literature[32] suggests that teacher training has the greatest effect on young people's behaviours when it focuses on attitudes and behaviours (rather than knowledge alone), includes experiential learning, aligns the subject matter with students' everyday lives and differentiates the instruction.

There is a robust body of evidence pointing to the consistent positive impact of train-the-trainer approaches on practitioners. With the exception of a few studies,[33] the longer-term impacts of training have not been fully explored. Further research could usefully explore the sustained effects of training with a view to understanding the need and frequency of repeat / refresher training and what form that may take. There is some robust evidence of the impact of train-the-trainer approaches on young people (mainly via teachers),[34] but further research is required to explore the full impact of the range of train-the-trainer approaches on children and young people's financial capability outcomes.

5.2. Theme 2: Workshops and classroom

Workshops and classroom formats enhance ability and mindset

Evidence consistently shows the impact of workshops and classroom formats (mainly face-to-face) on financial capability outcomes of children and young people, specifically ability (understanding the role of money, money management and understanding financial products and concepts) and mindset (particularly confidence and attitudes to money). Workshops and classroom formats that include practical activities enhance skills development and positively influence behaviour (see Theme 3).

Since 2018, fifteen new studies have informed this theme, providing continued consistent evidence of the effectiveness of face-to-face workshop and classroom style formats of delivery, and also emerging evidence of the use of online learning in classroom settings.

Consistent with the previous review, a good deal of evidence on developing financial capability for children and young people has focused on specific financial education teaching or interventions delivered in classroom/workshop settings, often within school settings. There has been a greater focus on secondary school age children[35,36,37,38] than primary school age children.[39,40] Across all ages, there is consistent, replicated evidence of the impact of this type of intervention in building ability and mindset, with some evidence of reach into behaviour.[41] School based programmes are particularly appealing because of the potential scale, reach and cost-effectiveness.[42,43]

Additionally, there is a body of evidence demonstrating the value of workshop/classroom formats with young people in community settings, often focusing on vulnerable young people [44,45] or young people not in mainstream school settings. [46,47,48,49,50,51,52] The evidence of what works in such contexts is more mixed and lacking in coherence, which is not surprising given the variability of the contexts and situations. There is much less replicated evidence within the same context, making it more difficult to draw out consistent effective practice. Indeed, tailored approaches are often necessary (this also links to Theme 11). Among older young people (post-16) in vulnerable contexts, peer approaches seem effective when embedded within structured workshop formats, providing an authentic, relatable experience alongside expert guidance.[53]

Classroom-based interventions show consistently strong outcomes in ability and mindset, with some evidence of reach into behavioural outcomes (managing money day-to-day), particularly where practical, skills-based activities are included (see Theme 3). Workshops in community settings with older young people (post-16) appear to be more practically-focused with a stronger link to behavioural outcomes, potentially reflecting the greater financial independence of the age group.

Classroom/workshop formats generally are effective because they allow for:

- **Structured learning** – a well-structured class or workshop will include clear learning objectives. A structured learning environment helps children and young people to stay focused and on task.
- **Interactive learning** – group discussions, debates and role-playing games allow children and young people actively to participate in their own learning.
- **Social interaction** – providing opportunities for children and young people to learn from each other, share ideas and opinions.
- **Assessment and feedback** – enabling the use of in class quizzes, presentations or projects to assess understanding and progress and provide constructive feedback.

Effective Practice Example

MyBnk's Money Twist programme delivers expert-led workshops to primary and secondary school pupils that are:

- Specialist: Delivered by specialist and experienced trainers.
- Unique: Embracing creative and new teaching methods to maximise learning.
- Participatory: Involving young people learning by doing and co-created with MyBnk's Youth Advisory Panel.
- Effective: Designed to be suitable for a wide range of young people in different settings, allowing for different abilities and learning styles.
- Relevant: Using real life stories, examples and videos to bring money and business to life, in a relatable way for the young people.

Primary Money Twist focuses on raising children's awareness of developing positive money habits as well as giving children confidence to discuss money with peers and parents. Secondary Money Twist covers practical and everyday financial matters, including budgeting, careers, banking and savings.

Evaluations of both Primary and Secondary Money Twist over two years showed consistently positive outcomes. Primary Money Twist was shown to have a positive impact on young people's:

- Capacity to defer gratification;
- Ability to understand, discuss and articulate new knowledge of money habits;
- Understanding of the concept of 'future', 'plans' and 'consequences'

Secondary Money Twist led to:

- An increased understanding of the role of money in society;
- An increased understanding of financial choices and decision-making;
- Improved understanding of financial concepts for the future.

Sources: MyBnk's Money Twist: Primary Year Two Impact Report 2018/19 (2019). Substance and MyBnk Secondary Money Twist Evaluation Final Report (2018). Substance.

Evidence points to a number of key ingredients for successful classroom/workshop style interventions:

- **Content mapped to curricular or standards** - Frameworks, such as the Financial Education Planning Frameworks[54] developed by Young Enterprise, support planning and delivery and progression of financial education, helping practitioners understand what is appropriate for children and young people to learn at different ages and stages and how content can be linked to the curriculum.
- **Supplemented by resources** - Research has evidenced the importance of access to good quality resources, such as lesson plans, teaching notes, content, classroom activities, textbooks.[55,56] These enrich the classroom experience, support less experienced teachers and save teachers time. Some research suggests that the provision of resources (combined with training) can increase the intensity and duration of financial education.[57]
- **With additional support or training** - Training for practitioners can enhance the delivery of classroom/workshop style interventions, by increasing practitioners' confidence, knowledge and skill and to plan and deliver financial education (see Theme 1).
- **Including practical, experiential learning** – Practical, learning-by-doing helps to build skills development and has a greater reach into behaviour (See Theme 3).

The effectiveness of classroom/workshop style interventions depends in part on the teaching styles and approaches used by practitioners. Research is generally not specific about the teaching styles and approaches used within classroom interventions, further research could usefully be conducted to help understand the link between particular approaches and specific financial capability outcomes for children and young people. Evidence[58,59] suggests several teaching approaches make classroom formats engaging and impactful, with a greater likelihood of influencing behaviour in young people. These include where teachers:

- **Make content relevant to the everyday** – Beyond mapping content to frameworks and curricula, where teachers made lessons personally relevant to their students, by focusing on topics of everyday relevance to them, this increases their interest and motivation to learn because they can see the relevance for themselves immediately or in the near future (links to Theme 5). For example, learning about budgeting for university, car insurance and student finance for school leavers.
- **Offer relatable personal experiences** – Where teachers shared examples of money management from their own personal experience, both positive and negative experiences, which can be particularly useful in the absence of parental modelling in the home.
- **Used interactive tasks** – Interactive tasks, involving discussions, debates, practical skills or research tasks provide an opportunity for students to put learning into practice, engage in problem-solving activities and build capability (links with Theme 3).
- **Included peer-learning** – Providing an opportunity for younger children to learn from the experiences of slightly older children, especially where they may have made a significant transition (e.g., from primary to secondary school or from school to university or work).[60,61]

While there is a robust evidence base of the effectiveness of classroom/workshop style interventions, it is largely from (mainstream) school-based educational settings. Given the variety of non-mainstream and community-based settings, the evidence from these settings is less coherent. There is a need for further research that focuses on understanding whether the same key ingredients outlined above also hold true in non-mainstream educational settings and in community settings and with vulnerable young people, to ensure interventions in those contexts can be designed appropriately.

A small number of robust studies have tested the effects of online/digital learning in school classroom contexts.[62,63,64,65] These studies all test different types of online/digital delivery with different age groups (including primary, middle and secondary schools), but consistently report improvements in financial knowledge immediately after the intervention. One study directly compares digital and traditional classroom formats and finds that the traditional classroom format resulted in greater and longer-lasting improvements in financial knowledge.[66] The same study also identifies a greater impact on young females' financial confidence from the traditional course over the digital one. The studies generally have not examined the impact of online/digital learning on behaviour, but where it has been tested, there was no meaningful impact detected.[67]

Emerging evidence therefore suggests that online/digital learning, while effective, may not be a substitute for traditional classroom teaching (in mainstream school contexts), but offers variety and interest and supports teachers with access to teaching materials, often at low cost. Further research is needed to understand the longer-term impacts of online/digital versus traditional classroom teaching on behaviour.

5.3. Theme 3: Experiential or active learning

Experiential or active learning enhances skill development and reaches further into behaviour change

There is consistent and replicated evidence of the effectiveness of experiential learning and learning-by-doing approaches on ability and mindset, with the most effective interventions positively impacting behaviour change. Financial education interventions set in real world contexts provide opportunities for young people to gain hands-on practical experience, handle money and take responsibility for financial decisions. Evidence of the effectiveness of experiential learning approaches exists across age groups and in mainstream and non-mainstream settings. Emerging evidence also highlights the positive role of digital games and apps in developing practical experience.

Since 2018, eight new studies have emerged that inform this theme. Consistent with the previous review, these studies demonstrate the effectiveness of experiential learning and learning-by-doing approaches. A range of different approaches, both real-life and simulated, is evident including:

- **Enterprise, economy or market-based activities**:[68,69, 70,71] These typically involve young people engaging in business or economic activities to make money. They generally provide an understanding of the wider role of money in society as well as practical hands-on experience of handling money. A school market garden programme[72] provided primary school pupils with real-life hands-on experience of handling money and applying numeracy within the context of garden-based learning. While My Classroom Economy,[73] a free programme available to teachers in the U.S., provided a simulated economy experience where students engaged in financial decisions as part of their daily school life. Students engaged in experiences that required understanding of prices and practicing budgeting, and teachers used payments in the economy to reward or sanction student classroom behaviour, which also helped with classroom management.

Promising Practice Example

A market garden programme in an Australian primary school, involved students taking responsibility in the garden shop by taking orders, collecting money and calculating change. Children harvested, weighed and bundled the vegetables, applying numeracy skills in a real-life setting. Children also recorded and produced graphs of their financial data, which motivated them to look for ways to improve their results. Teachers and volunteers reported improvements in financial literacy in being able to understand commerce in the real world and the value of goods and money. Parents also reported valuable outcomes in children's interest in financial decision-making and appreciation of money. Introducing credit to the operation offers the potential to build on the capacity of the initiative to provide financial education. The assessment report suggests that financial literacy learning outcomes could be strengthened further by involving students more in the management of the scheme, giving them greater responsibility.

Source: Williams, Peter; Morton, Jason K. & Christian, Beverly J. (2022) Enhancing financial literacy in children 5–12 years old using authentic learning within a school market garden programme, Education 3-13, 50:3, 361-374.

- **School banks and supported personal finance activities:** [74,75] School banks, particularly in primary schools, have existed for some time. These initiatives usually involve banks or credit unions within the school environment, typically focusing on savings schemes. The principle of these schemes is that accounts are set up with the affiliated bank and children are encouraged to make regular payments. Some concerns have been voiced about the potential for these schemes to become a hidden form of marketing to children who are vulnerable consumers, and calls have been made for industry guidelines, including clear labelling of marketing materials and the option of providing choice between banking providers.[76] Other evidence suggests that savings mindset and behaviour can be fostered in school by combining instruction with doing, helping young people to set savings goals for themselves and then coaching them to achieve these goals. The Savewise programme, [77] delivered to 15 year olds from disadvantaged backgrounds, led to improvements in financial knowledge, intentions to save and savings behaviour and suggests that by extending time devoted to the program, and more frequent reminders, more significant and lasting impacts could be achieved. It also recommends a greater emphasis on impulse control, which could also be integrated into other school subjects. The use of a personal budget app, with individual coaching, also proved effective in improving financial literacy and access to credit among disadvantaged school-leavers.[78] (see Theme 9).

- **Money activity days/weeks:**[79] Off-timetable activity days or weeks, including taking part in national money weeks or maths weeks usually provide an opportunity to involve more interactive, cross-curricular activities focused on hands-on experience. They also provide both the space and time often not available during normal teaching times. Hands-on, experiential learning is a key feature of the activities undertaken by schools (see Theme 9).

- **Life and work-related experiences:** Examples here include MyPocketSkill,[80] a digital earning and saving platform connecting young people to opportunities to earn money, and The Money House[81] providing practical experience for young people aged 16-25 who are moving into independent living. The experiential learning is delivered within a number of flats, where young people can gain hands-on experience of running a home and managing bills (see Theme 10). In both cases, young people gain real-life experience.

There does therefore seem to be an emerging body of evidence on the value of experiential initiatives which take place both in the lived and digital worlds. Practical, hands-on experiential learning can be more expensive to deliver. Hence, technology offers promise in delivering experiential learning, particularly through gamified approaches that provide simulated real-life learning experience within a safe space. Evidence suggests that gamified approaches can improve young people's financial knowledge and stimulate interest in the subject. However, the impact on attitudes and behaviour remains to be established.[82] Future research could usefully investigate how gamified approaches can be used to influence connection, particularly exposure to risk, and behavioural outcomes.

Positive Practice Example

MyPocketSkill's Earning is Learning digital platform connects young people with opportunities to earn money, whilst encouraging a savings mindset and behaviour. The length of time young people used the platform had an impact on their engagement. Earning through the platform increased young people's understanding of the importance of money. Young people appreciated the value of earned money more than money they had been given, and were motivated to earn and save more money. However, there was less evidence of users actually engaging with the savings features (such as savings pots and nudges).

Source: Evaluating My Pocket Skill's 'Earning is Learning' Programme (2022). Ecorys.

5.4. Theme 4: Parental involvement

Parental involvement influences children and young people's mindset, connection and behaviour

There is consistent and replicated evidence that parental involvement has a positive impact on children's mindset, connection and behaviour, specifically increasing conversations with children about money and increasing children's exposure to and handling of money. Young people that receive parental teaching of money management are more likely to develop positive attitudes to money and develop earlier savings habits. Parental teaching at a young age influences financial behaviours and financial wellbeing into adulthood. There is also consistent evidence of the effectiveness of parental interventions that increase parents' awareness of their role in their children's financial capability, and positively influences parents' behaviour with regard to parental teaching about money.

Nearly two-thirds of young people (68%) say that most of their financial understanding and knowledge comes from their parents.[83] Research consistently shows the important role of parents in implicit (parental modelling) and explicit (direct conversations or experiential learning) financial socialisation.[84]

Since 2018, fifteen studies have informed this theme including academic research exploring parental socialisation practices and four studies testing a parenting intervention. Collectively, the studies provide consistent and replicated evidence of the effectiveness of parental involvement on children and young people's financial capability.

Parental teaching and conversations about money in childhood and adolescence are positively associated with financial knowledge, attitudes, and behaviours (such as managing money well and saving regularly), and has been shown to lead to greater financial wellbeing in young adulthood.[85] Openly discussing family finances with children is negatively associated with financial anxiety in emerging adulthood[86] and improves young people's self-esteem.[87] Children with stronger financial capability tend to have parents who are more financially capable, who talk to their children about money,[88] are confident role models and give their children responsibility for their own money.[89] Research shows a positive link between parental saving and children's financial capability,[90] whereas children living in homes where adults have lower financial capability or are 'struggling' or 'squeezed' or over-indebted are more likely to have lower financial capability.[91]

Effective Practice Example

Talk, Learn, Do (TLD) is a financial capability intervention developed and funded by MaPS. It is aimed at parents of 3-11 year-olds and consists of a two-hour session that aims to:

- raise parents' awareness about the importance of talking to their children about money from an early age;
- improve parents' confidence in talking to their children about money; and
- provide parents with the skills to do so.

TLD was originally piloted in Wales (in 2016-2017) and delivered as part of existing parenting courses. It has since been further embedded in Wales (throughout 2019 and 2020) and also tested in Scotland, Northern Ireland and England (throughout 2020-2021) with a wider range of practitioners and organisations working in a broader range of settings (including parenting practitioners and others working with parents) and well as a wider range of delivery methods (in one-to-one and group settings, including structured and unstructured activities, face-to-face or digital delivery).

The evidence shows that TLD has successfully trained a wide number of practitioners in a variety of settings to deliver TLD to parents, consistently improving their awareness and understanding of the role parents play in teaching their children about money, and equipping them with the skills and confidence to support parents to teach their children about money.

TLD has increased parents' confidence in knowing what to talk to their children about and increasing conversations with their children about money, leading to children's improved understanding of money and greater exposure to and handling of money at a younger age.

Sources: Evaluation of Talk, Learn Do: A Financial Capability Intervention for Parents (2018). IFF Research and Belmana Consulting; Evaluation of Embedding Talk, Learn, Do in Wales (2020). Arad Research; Talk, Learn, Do in Scotland, Final Evaluation Report (2022). ScotCen Social Research; Northern Ireland Talk, Learn, Do Evaluation (2022). Reed in Partnership; NatWest Talk, Learn, Do Evaluation (2022). IFF Research

Parental involvement has a positive impact on mindset, connection and behaviour of children from a young age by parents:

- Role modelling – by openly demonstrating good financial habits;[92,93]
- Providing opportunities for children to gain experience of handling money and money decisions - such as involving children in household and everyday financial decisions and giving children responsibility for money;[94] (links to Theme 3)
- Discussing money with their child - these can be either informal conversations or purposive discussions.[95]

Research[96] shows that both parental role-modelling and providing opportunities for experiential learning had the greatest impact on financial satisfaction and financial wellbeing in young adulthood, compared with parent-child discussions. Parent-child discussions may influence financial capability outcomes via increasing financial knowledge in children, but only where parents feel confident and equipped to discuss money matters with their children. Research from the US suggests[97] that middle-class parents are more likely to initiate parent-child discussions about money and offer advice about money, and are more likely to continue to discuss money with their children even when their financial situation worsens. By comparison, parents of working-class background were more likely to feel that they did not know enough about managing money to teach their children and rather than initiate discussions with their children about money, tended to wait until their child asked questions about money. They also were more likely to shield their child from the realities of their financial situation.[ii]

There is consistent evidence that suggests a parenting intervention (Talk, Learn, Do)[98,99,100,101] can increase parents' awareness of their role in their children's financial capability, and positively influences parents' behaviour with regard to parental teaching about money. Evaluation evidence from a range of contexts suggests that there is potential for:

- Differentiated/tailored approaches to Talk, Learn, Do, taking into account the background and experience of parents;
- Embedded (in existing parenting interventions) or stand-alone versions;
- Different routes to reaching parents – for example employers and housing associations may help to widen the reach, and collaboration with schools by linking to school-based financial education.

Further research is needed to understand the longer-term impacts of interventions, such as Talk, Learn, Do, on parental socialisation methods and financial capability outcomes for children and young people. If positive parental role-modelling and learning-by-doing have the greatest impact on young people's financial

[ii] Differences between US and UK classification of middle- and working-class may affect the transferability of such results to the UK.

capability, there is a need to understand how these can most be influenced by parenting interventions, such as Talk, Learn, Do.

Given the importance of cognitive functions, such as executive functioning, among young children (see Theme 6) further research may usefully explore how parenting interventions can help to support this, as well as help parents to understand what they can do to help young children develop self-control and self-regulate their behaviour.

5.5. Theme 5: Timing and context

Timing and context amplify the effectiveness of interventions and remain important in influencing behaviour

There is consistent evidence that links the effectiveness of financial capability programmes to timing and context. Capitalising on teachable moments and key transitions, when young people are most receptive to learning about money management, with "just-in-time" financial education, enhances the relevance and increases the likelihood of the effectiveness of the intervention.

Since 2018, six studies have informed the development of this theme, providing further evidence of the link between timing, context and effectiveness of financial capability interventions. Research suggests that learning about financial concepts and acquiring skills at a time when they are most relevant and needed enhances the likelihood that young people will be more receptive to the learning, they are more likely to be emotionally invested, and are therefore more likely to act on the learning. A "just-in-time" approach to financial education can be effective for several reasons:

- **Relevance:** Just-in-time financial education is highly relevant to the young person's immediate needs, concerns or interests, making it more likely that information will be remembered and put into practice.
- **Contextual learning:** Learning in the context of a specific financial concept or financial decision can help young people understand the practical implications and how they relate to their personal circumstances.
- **Increased motivation:** Just-in-time financial education can increase motivation to learn because is addresses a specific need or goal of interest to the young person.
- **Time efficiency:** The approach can be more time-efficient since it can put into practice straight away and avoids the need to learn and retain information that may not be immediately relevant. It is also more likely to lead to immediate action.

Identifying such temporal opportunities is key to the effectiveness of this approach. Many opportunities arise at the point when children and young people are likely to engage in a key financial decision or action, such as taking responsibility for their own money or opening their first bank account. These are often age- or stage-related.

Research has identified the importance of key transition points in a young person's life (such as starting school, moving from primary to secondary school or leaving school) that are associated with progressively increased independence and financial responsibilities. These predictable transitions provide key opportunities for planned financial education. Many of the interventions have included an experiential aspect, such as opening a bank account or earning and saving money[102] at the point at which it is relevant. Interventions here tend to focus on improving young people's awareness and understanding of basic financial concepts, and how they relate to their everyday life.

The increasing financial independence associated with adolescence and young adulthood presents many valuable opportunities for learning[103] and is not surprising that much of the past and recent research has focused on this key transition stage of a young person's life. Studies have focused on preparing school leavers;[104] transitions to student life; transition to independent living (specifically with a focus on vulnerable and disadvantaged youth[105,106] and young people in non-mainstream educational contexts.[107]

Effective Practice Example

The **Financial Education for 16 and 17 Year Olds Pathfinder** project tested the impact of different methods of financial capability delivery among this age group. It demonstrated that positive financial capability outcomes can be achieved for 16 and 17 year olds, where interventions are delivered by trained practitioners using consistent content shaped by financial education experts and evidence about the building blocks of financial capability. Young people showed improvements in a range of mindset and ability measures, including confidence managing money, budgeting, and recognition of the importance of saving for the future, thus equipping them for their transition to adulthood and greater financial responsibility.

Source: Financial Education for 16 and 17 Year Olds: Pathfinder Evaluation (2021). Hannah Woods and Harry Odell, Trust Impact.

Other "teachable moments" may be unpredictable and spontaneous and may arise at any time. Such as a unique instance involving a child's natural curiosity and desire to learn which presents an opportunity to teach something to them. Educators and parents need to be attuned to and open to such moments. Parental support and training (see Themes 4 and 1) can enhance this. Opportunities for teachable moments can be enhanced by:

- Engaging children and young people in active learning (links to Theme 3) – This provides opportunities to develop critical thinking and problem-solving skills
- Involving children and young people in interaction and dialogue – (links to Theme 2)
- Remembering that learning can occur anywhere – Learning about money can occur in any setting or context (e.g., a trip to the supermarket). By being open to and attuned to the learning opportunities that arise in everyday life, educators and parents can make connections between children and young people's everyday experiences and money.

Consistent with the findings of the previous review, our updated review continues to indicate that the key characteristics of effective financial programmes delivered on a 'just-in-time' basis have a strong emphasis on relevant, practical, experiential characteristics that serve to increase skills, confidence and self-efficacy of young people that have a greater impact on behaviour. The findings of the reviewed evidence hold true for young people in mainstream educational contexts and for vulnerable groups in non-mainstream contexts. Overall, studies suggest that young people are particularly receptive to financial education when it is relevant and delivered at a time when they are facing key financial responsibilities.

5.6. Theme 6: Cognitive factors

The role of cognitive factors is important in downstream financial behaviours

Evidence highlights the important role of cognitive factors (such as executive function, numeracy and risk perception) in influencing financial behaviour. Better cognitive function in childhood is associated with better financial outcomes in later life. Primary school age is a key foundation in a child's cognitive development. However, many cognitive biases develop at a young age and impact financial decision-making. Financial capability programmes must simultaneously support the development of better cognitive functioning, whilst increasing awareness of cognitive biases.

Since 2018, seven research studies have been published that have influenced the development of this theme. Cognitive factors, such as executive functioning, numeracy and risk perception can significantly influence young people's financial capability.[108] These are inherent characteristics, hence evidence of the effect of cognitive functions has not changed since the previous review.

Executive functioning refers to a set of cognitive processes that enable individuals to plan, organise, prioritise, and self-regulate their behaviour. These processes play an essential role in financial decision-making, supporting the development of financial goal setting, budgeting, planning and making effective decisions.

Given the importance of executive functioning and self-regulation of behaviour to financial capability, it is surprising that very few studies have focused on the mindset outcomes of self-control, perseverance and aspirations and goals. There would seem to be a key gap in financial interventions, especially among young children in explicitly attempting to effect change in these specific outcomes. It is important for educators and parents to recognise these factors and provide young people with support to develop cognitive functioning. Critical thinking is a skill that can be developed and should feature more.

Research highlights a strong link between numeracy and financial capability outcomes.[109] While numeracy has been shown to be important to financial capability in adulthood, young children may lack numeracy skills (Theme 7). Financial capability interventions aimed at very young children, therefore, need to focus on broader economic concepts (such as giving, taking, borrowing etc.), rather than money, which young children can understand without relying on numeracy.

Research Insight

"**Executive function** faculties influence an individual's abilities to apply their knowledge in various situations, to control their cognitive, emotional and motivational processes, and learn intentionally. The most important basic executive functions: inhibition, attention flexibility and working memory are vital to children developing metacognitive and self-regulatory abilities which enable them to become effective learners. Research suggests a marked increase in the child's ability to co-ordinate inhibition and activation, and to attend flexibly during the age period from 3 to 5 years. Likewise, the ability to hold information in mind over a time delay develops very early (before 6 months); children gradually become able to hold more items in mind and for longer periods of time throughout the preschool years."

Source: Dr. David Whitebread and Dr. Sue Bingham University of Cambridge (2021). Habit Formation and Learning in Young Children. The Money Advice Service.

Financial decision-making often involves weighing the risks and benefits of different options, hence, risk perception is a key cognitive function in financial capability. Young people who have a poor understanding of risk may make overly risky or overly cautious financial decisions. Given the importance of risk to financial decisions, it is surprising that few studies have specifically focused on the outcome of managed exposure to risk, highlighted as a gap in the

Evidence Map. Parental teaching can provide young people with managed exposure to risk. School-based financial education may offer fewer opportunities, although experiential, hands-on, practical learning opportunities (either real or simulated) can support risk exposure in a safe and controlled context.

A number of cognitive biases affect financial decision-making and develop in children at a young age. Young people tend to suffer from present-bias,[110] a tendency to prioritize immediate gratification over longer-term goals, leading to sub-optimal financial decisions.[111] Research shows that uncontrolled impulsiveness can increase susceptibility to materialistic spending in young adulthood,[112] and highlights the importance of addressing self-control at an early age. As already mentioned, given the importance of self-control, it is surprising that this has not been addressed explicitly as an outcome in many financial capability programmes and leaves a key gap warranting further attention. Research has shown that school-based financial education, particularly in secondary school settings can improve the quality of intertemporal decision-making (by reducing present bias and increasing delay sensitivity).[113]

Other cognitive biases include overconfidence bias, the tendency to overestimate one's abilities and knowledge and take on financial risks without fully understanding the consequences. Research shows that young adults who are overconfident about their credit ratings are less likely to save, budget, or invest and know less about financial matters.[114] Addressing self-confidence, particularly awareness of overconfidence would seem to be useful. Another bias affecting young people is that of herd mentality which leads to young people following the crowd. Young people who are susceptible to herd mentality make financial decisions based on the actions of their peers, without considering their own needs or goals. Financial capability interventions need to make young people aware of this.

It is important that financial capability programmes recognise the interplay between behaviour and cognitive functions. Reliance on knowledge and understanding alone is not sufficient to influence behaviour. In addressing cognitive functions, financial capability programmes need to:

- Enable young people to develop executing function skills
- Support self-regulation of behaviour and self-control in young people
- Encourage and support young people to develop good habits
- Expose young people to risks in a controlled, safe way
- Make young people aware of cognitive biases and how to recognise them
- Support parents and educators to understand how they can enable their young people to develop appropriate cognitive functioning, by developing hands-on experience and exposure to financial decisions
- Make parents and educators aware of cognitive bias and how they affect young people's financial decisions.

5.7. Theme 7: Earlier the better

The earlier the better - interventions at a young age can positively influence financial capability

Evidence consistently highlights the importance of early childhood financial capability interventions. Emerging evidence is helping to understand: (1) what financial capability looks like for very young children (under the age of seven years); (2) how financial capability might be supported by parents and others working with children under the age of seven; and, (3) how to measure financial capability of very young children. Direct evidence, though, from very young children (under the age of seven years) is still limited. Since 2018, there have been sixteen studies that have informed this theme. Eight of the studies have tested interventions with either children or parents of young children and show evidence of effectiveness. The remaining studies comprise good quality research, literature reviews and expert insight into the factors affecting financial capability in young children.

Research shows that children form money attitudes[115] and habits[116,117] at a young age. By age three, children can develop basic money concepts and by age seven many of their money habits, including the ability to plan and delay gratification are already set.[118] Attitudes and habits formed at a young age, such as those relating to spending versus saving, persist into adulthood and underpin financial capability later in life.[119] Research suggests that a key predictor of later life financial wellbeing is the age at which a child starts learning about money.[120] This underlines the importance of talking to children about money at a young age, both at home and at school (before the age of seven) in developing positive attitudes and skills around money management.[121]

While previous evidence related to the financial capability of children and young people has tended to focus on children over the age of seven years, there is growing insight into what financial capability looks like for young children, under the age of seven, which is crucial to being able to support financial capability development and measure it. Literature suggests the following key factors that influence the development of young children's financial capability:[122,123,124]

- The stage of a child's development (including emotional and cognitive aspects as well as literacy and numeracy)
- The important role of early financial socialisation (typically from parents/carers, but also including teachers)
- The financial capability of parents/carers and their behaviours (Theme 4)

Children at a young age develop at different rates. A child's development is influenced by emotional and cognitive processes that affect understanding. While literacy and numeracy have been shown to influence financial capability outcomes,[125] young children may lack literacy and numeracy skills. Research suggests that financial capability for young children should not be about money (which relies on numeracy), but should focus on broader economic concepts (such as giving, taking, borrowing etc.) which young children can understand without relying on numeracy.

Parents play a key role in implicit (parental modelling) and explicit (direct conversations or experiential learning) financial socialisation, which can enable or inhibit a child's financial capability development.[126,127] The influence of parents has been well researched, including the influence of practices such as giving pocket money or allowances, which are important in building connection and influencing behaviour. Saving behaviour as a child and setting savings goals has been linked to saving in later life,[128] suggesting the importance of developing savings habits at an early stage and the key role that parents have in influencing mindset, connection and behaviour.

At a very young age, children's values and attitudes are linked to those of their parents. Parents also control access to financial resources and decide on their child's responsibility for managing money, spending and saving. Children are typically "apprenticing" as they learn from parents. Variation in young people's financial capability across the UK may suggest the influence of cultural factors that may warrant further exploration and understanding.

Promising Practice Example

Milo's Money, developed by the Just Finance Foundation, is a new financial education programme for primary school children aged 4-7 years. It aims to equip them with a basic understanding and awareness of financial literacy. The programme consists of Milo's Money website https://milosmoney.co.uk/ comprising a Resources Hub (with over 60 unique classroom resources for teachers), a teachers' forum, and interactive online shopping game https://milosmoney.co.uk/milogame/

The programme was piloted with 72 teachers who took part in Dino Development training workshops and then delivered the programme in school.

Feedback from teachers suggested the storybook format and online game worked well in engaging children. The dinosaur character helped to frame conversations about money without the need to rely on children's own experiences. The online game allowed children to experience a shopping trip, choose and pay for items within a budget, and make spend and save decisions. It also enabled children to apply maths skills in a specific context.

Feedback from parents and children was limited, but the programme is potentially transferable to other educational settings, including home and special education needs contexts.

Source: Evaluation of Just Finance Foundation's Milo's Money Pilot (2022). Ecorys.

Most research on parental socialisation has focused on older children (older than seven). While there is growing evidence of interventions specifically targeting children under the age of seven,[129,130,131] evidence to date has more robustly focused on the direct impact on parents and their behaviour. [132,133,134,135] Parenting interventions are an important way of strengthening parents' financial capability, discussed further under Theme 4.
The full impact of such parenting interventions on young people, with direct evidence from children themselves is still limited.

There is emerging evidence that storytelling seems to be an effective way to deliver financial education for children under seven.[136,137] Using stories to teach money concepts and behaviours can give young children an opportunity to discuss values and attitudes in a creative and engaging way and can help to change attitudes and behaviours through memorable experiences and powerful messages. Stories can engage children and can help to frame conversations for adults. Moreover, children do not need to rely on or have their own experiences (which many lack at a young age), and they provide a context through which young children can experience or "rehearse" future behaviours. Evidence also suggests that storybook approaches are inclusive of children across ability ranges (overcoming some of the limitations with literacy and numeracy at a young age) and have the potential to be adapted for use in specialist educational settings.

To date, the limited evidence of the use of story-based approaches has been tested in school settings with teachers. While story-based approaches would seem to lend themselves to parental teaching as well, there is a lack of evidence of their impact and they remain to be tested in this context.

There is also promising indication that story-based approaches can be used as a method for measuring financial capability in children under seven years, overcoming the challenges of lower and varying levels of literacy and vocabulary at this young developmental stage and shorter attention spans that inhibit the use of other research methods (e.g. surveys and interviews) with very young children.[138] While evidence suggests it is possible to develop a valid story-based scale (i.e. one that measures what it is intended to measure), further research is required to ensure a story-based scale can reliably measure financial literacy across a broad population of children.

5.8. Theme 8: Knowledge and behaviour

Financial education affects both knowledge and behaviour and is resistant to decay over the medium-term

A body of evidence now confirms a positive effect of financial education interventions on both knowledge and, to a lesser extent, behaviour. This contrasts with earlier evidence that reported financial education interventions had a negligible impact on financial behaviour in particular, and the effects of financial education decayed over time.[139] There is a lack of evidence to support or refute the long-term effects (12 months or longer),[140] but there is strong evidence, on average, of sustained impacts at 7 months following financial education interventions.[141]

Several factors help to explain the apparent contradiction between earlier and more recent insight into the effects of financial education, including:

1. More robust research and measurement of financial education interventions, including an increasing number of randomised controlled trials;
2. More nuanced meta-analyses of financial education studies that take into account between-study heterogeneity (such as participant age, hours of instruction, time passed between treatment and measurement of outcomes). Earlier meta-analyses largely included studies targeting adult-based financial education and did not separate out financial education interventions targeting children and young people;[iii]
3. A greater focus over time in financial education interventions on self-efficacy (confidence) and skills that are more likely to have an impact on behaviour change than interventions aimed at improving knowledge and understanding alone.[142] This is consistent with a general shift from financial literacy to financial capability.

Since 2018, there have been two key meta-analyses that have informed this theme: one comprising an analysis of 37 studies focusing exclusively on school-based financial education[143] and one where 30 per cent of the 76 studies analysed targeted children and young people under the age of 25.[144] These meta-analyses confirm that financial education aimed at children and young people has a positive effect on both knowledge and behaviour. The meta-analyses reinforce previous evidence of the positive impact of financial education on knowledge and understanding.[145,146,147] In addition, they show that on average:

- The effect of financial education interventions on financial knowledge is similar in magnitude to the average effect sizes realised by educational interventions in other domains, such as maths and reading;
- The effect of financial education on financial behaviours is comparable to effect sizes observed in behaviour-change interventions in the health domain, or those aimed at fostering energy conservation;
- The effect of financial education is larger than research has previously suggested, in fact three times as large (when comparing the estimated weighted average treatment effect to that documented in previous analysis of randomised controlled trials) and five times as large (when accounting for the possibility of cross-study heterogeneity).
- Financial education interventions appear to have a higher effect on knowledge and a lower effect on behaviour when comparing children and youth with adults.

[iii] In the meta-analysis by Miller et al. (2015), only 18% of the studies examined across 188 papers were in school settings. The meta-analysis by Fernandes et al. (2014) did not specify the age of participants, but the financial behaviour outcomes measured suggested a largely adult population.

- The larger effect on knowledge among children and young people is likely due to them having a higher capacity to learn (compared with adults), but a limited capacity for behaviour change, especially at young ages. Effect sizes reported in interventions in primary schools appear to be larger than in secondary schools, suggesting the importance of starting financial education early.
- Higher intensity of teaching (number of hours taught) increases effect sizes, but with declining marginal returns in relation to financial education outcomes. Brief interventions (of one hour) show very small effect sizes, while higher intensity interventions (up to 10 hours) show effect sizes of nearly three times as much, but there appear to be marginal returns to increased intensity beyond 10 hours, suggesting there may be an optimal number of hours.
- Lower student to teacher ratios (i.e., smaller class sizes) may be associated with a higher degree of effectiveness (this links with Theme 2 on classroom interventions). Effects on financial knowledge are larger in smaller class sizes (up to 15) compared with class sizes up to 20. Class sizes of 25 or more show a decline in effect but due to the small number of studies, this finding is not conclusive. Effects are likely to be influenced by teacher capability, teaching methods and pupil characteristics rather than class sizes alone;
- The effects of financial education are resistant to decay over the medium-term (around 7 months). In contrast to earlier studies,[148] evidence does not suggest a rapid decay in the realised treatment effects of financial education. There is a lack of evidence to support or refute the decay of financial education treatment effects six months or more after intervention. There remain a limited number of studies measuring financial education outcomes beyond 12 months, and the small number that have report promising results of longer-term[149] or sustained effects.[150,151]

Financial education programmes tend to be unique and should be assessed on their own merits. This links to Theme 11 in terms of the return on investment. Research has shown that school-based financial education, particularly in secondary school settings has a positive effect on a number of behaviours, including: increasing bank account ownership;[152] reducing non-student debt, fewer defaults and improving credit scores;[153] shifting borrowing to lower cost methods;[154,155] and increasing student loan repayment rates.[156]

Research Insight

"Treatment effects on financial knowledge are predicted to be significantly larger than zero up to 7 months after the intervention took place" (p.5)

Source: Kaiser, T. and Menkhoff, L. (2020). Financial Education in Schools: A Meta-Analysis of Experimental Studies, Economics of Education Review, 78 (2020), 1-15.

While evidence suggests an impact on knowledge and, to a lesser extent, behaviour, there remains limited insight into what specifically drives the effect. Within reported studies of financial education, there is much that remains unexplained. Arguably, what happens in the classroom, including teaching styles and methods are important factors, but are largely unobservable and untested in existing studies (Theme 2). There needs to be a more thorough documentation of the financial education programmes/interventions to understand what is driving the effect. Teacher characteristics, teaching methods, resources used, young people characteristics and prior financial education experience may all influence the effectiveness of a financial education intervention in different ways. The quality of financial education can be enhanced by improving the capability of financial education instructors,[157,158] the provision of quality financial education resources, and the teaching methods employed. Teaching based on "active learning" and more personalised, relevant and "just-in-time" financial education has been shown to have a greater impact on more immediate financial behaviour change (see Themes 3 and 5).[159]

Future research should attempt to understand in more detail the relative impact of specific drivers of the effect on knowledge and behaviour, in particular the content of the financial education curriculum, teaching methods and teacher expertise alongside other factors such as financial education intensity. Further research is also needed to explore the impact in home and community settings as well.

5.9. Theme 9: Mainstream interventions

Some mainstream interventions, particularly digital, are still not well evidenced.

The previous report noted a lack of rigorously researched evidence of long-term impact around some interventions that have attracted widespread use. Specific examples noted were enterprise education programmes, online games and financial/pocket money apps. There is now some evidence of the effectiveness of enterprise education programmes and a national money week activity. Evidence of the impact of digital tools for money management is emerging, but the impact of the widespread use of pocket money apps on children and young people's financial capability remains largely untested.

Since 2018, three new studies have been published that have informed this theme. Each study shows evidence of effectiveness, but has tested very different interventions in different contexts, suggesting further research is needed to build depth to the evidence base.

Enterprise education primarily aims to develop key enterprise skills that equip young people for the world of work, but also has a positive impact on financial capability development. Enterprise education supports financial capability development via the development of character traits (such as resilience, confidence, communication and organisation skills) and via numeracy and greater experience of handling money. The positive impact of enterprise education on financial capability can be seen in the impact of Young Enterprise's Company programme,[160] a real-life learning opportunity that enables teams of young people aged 13-19 years to gain practical business experience, develop an enterprising mindset and build employability skills. Alongside its impact on key enterprise skills, 78% of young people that took part found Company programme useful in learning how to manage money.

There is now a wide range of pocket money apps in circulation. Pocket money apps are money management tools designed to help children to learn how to earn, save and spend money. They tend to include a pre-paid card and an app that children can use to manage their card, and through which parents can supervise use, set tasks, give pocket money and control spending limits. Each has different features, some are free but others charge for use. Some examples include: GoHenry, NatWest Rooster Money, Starling Kite, Revolut <18, Nimbl, Osper, Gimi. Despite the widespread adoption of such apps, we did not find any studies testing the impact of these specific digital tools on children and young people's financial capability.

Effective Practice Example

My Money Week is a national activity week run by Young Money, part of Young Enterprise. It has taken place every year (in June) since 2009, and is the highest profile and most recognised personal finance education initiative in England.

My Money Week is supported by a range of resources including, Teachers' Guides, Lesson PowerPoints, classroom and home activities, that are updated each year, often around a theme.

In academic year 2021-22, 151,177 young people and 1,509 educators from 1,018 education centres participated.

Evaluation evidence suggests that My Money Week has a positive impact on teachers, schools and young people. Teachers experience an increase in confidence, knowledge and skill to deliver financial education to young people.

My Money Week provides a clear focus and time commitment for financial education (in some cases where it otherwise would not exist), and it is often a catalyst for the development and expansion of financial education in schools.

Children and young people (in both primary and secondary schools) generally found My Money Week enjoyable, interesting and useful, and reported an increase in knowledge and understanding and confidence dealing with money, and a desire to learn more. Behaviour changes depended on age and lessons/activities covered in My Money Week. Some reported changes to behaviour included: talking to parents about money, seeking or taking more responsibility for their own money, opening a bank account, and saving.

Source: My Money Week Impact Evaluation, 2021-2022. Tina Harrison and Jake Ansell. University of Edinburgh Business School/Young Enterprise

We found only two studies, involving children and young people and digital financial tools. Both show evidence of effectiveness, but are testing very different tools. Hence, it is difficult to draw out general indicators of effectiveness, although in both cases, engagement seems to be a key factor.

The first, MyPocketSkill's Earning is Learning digital platform is a specific tool connecting young people to opportunities to earn and save money. The platform provides experiential learning and (see Theme 3) has been shown to have a positive effect on young people's understanding of and appreciation of money. The second, a randomised controlled trial involving 16-18 school leavers from disadvantaged backgrounds, tested the effectiveness of a budgeting app on financial literacy and behaviour. The app enabled young people to record their financial transactions over a six-month period, thus creating a financial diary. In addition to the app, young people received biweekly individual monitoring visits. The app did not explicitly include any financial education, but led to improved financial literacy scores and awareness of market prices, because it prompted young people to search for financial information. Use of the app did not prompt significant changes in saving, but analysis of credit bureau data at eight months after the end of the intervention showed that use of the app led to improved access to credit. The combination of the app and individual coaching approach makes it difficult to separate out the specific effect of the app.

Elsewhere robust evidence of the effectiveness of budgeting apps has been tested with young adult and adult populations and shows that users of a commercial budget app who used the tool to set a budget subsequently decreased their spending to a greater degree than similar users who had not set a budget. The study also showed that individuals do not always comply with the budgets they set, but setting a budget acts as a key reference point and budgets are sticky over time (i.e., individuals continued to reduce their spending six months after setting a budget). The extent of compliance with a budget may be linked to psychological factors, such as self-control: more-impulsive individuals were found to have worse budget compliance than less-impulsive individuals – not because they overspent, but because they tended to under-budget.

Overall, emerging evidence seems to suggest that digital apps hold promise, specifically in helping young people to appreciate the value of money and build experience of economic transactions, budgeting and managing money. However, there is a need for further research to understand the impact of digital tools on young people, specifically engagement, motivation, self-control and the extent to which gamified elements and nudges can drive positive behaviour.

5.10. Theme 10: Return on Investment

Consideration of the Return on Investment of financial education interventions is growing, but still largely lacking

There is still a lack of routine assessment of the return on investment of financial capability programmes. This seems partly due to a lack of a common understanding of how the returns (value) from such programmes should be measured: there is no consistent approach to measuring the returns. An increasing number of studies have attempted to quantify the costs associated with the delivery of the programme, and link these to the treatment effects of programs to ascertain their cost-effectiveness. Yet, few, if any, studies attempt to measure the wider social and economic impacts of the interventions.

Attempting to measure the return on investment in financial capability programmes is complicated. The ultimate returns are linked to improvements in (often future) financial behaviours (e.g., saving, managing money effectively and dealing with financial difficulties). However, there can be significant time lags in effects that are not apparent within the, often, short-term timeframes of evaluations. This requires longitudinal research to track impacts over time. For children and young people, the time-lags between interventions and any economically meaningful impact may be even wider, increasing the challenge of drawing a causal relationship between inputs and outcomes.

Since 2018, there have been six new studies that have informed this theme. The studies demonstrate the cost-effectiveness of certain financial education interventions and approaches for assessing the returns from such programmes. Any assessment of return on investment needs to take account of the investment (costs) in the intervention and the benefits (returns). In a meta-analysis of 76 financial education interventions, 20 included a discussion of costs.[161] The studies reporting costs tended to involve low-income samples. The authors report that given they found no difference in effect sizes according to the income of the population, they we unable to say what was driving the difference in effect sizes with respect to studies reporting costs. They go on to report that the average cost-effectiveness ratio was $60.40 per person for one-fifth of a standard deviation improvement in outcomes (a medium-sized treatment effect), leading them to conclude that financial education is a low-cost intervention, as illustrated by a large scale study in Peru (see box)[162]

Research Insight

A large-scale randomized controlled trial among public high schools in Peru involving an intervention targeting 14-16 year olds, found that the average cost of implementing the programme in 150 schools (31,000 students) was US$ 6.6 per student. The cost-effectiveness ratio (in terms of the impact on student financial knowledge) was deemed to be high and estimated to be equivalent to a 14.8-point improvement in the PISA financial literacy assessment.

Frisancho, Veronica (2018). The Impact of School-Based Financial Education on High School Students and their Teachers: Experimental Evidence from Peru, IDB Publications (Working Papers) 8835, Inter-American Development Bank

However, this should be treated with some caution. The relationship between financial education, financial capability and financial behaviour needs to be understood. Other research suggests that traditional classroom based courses are more expensive than a digital course, but the traditional course had better long-run effectiveness.[163] In assessing the costs and benefits of different teacher professional development approaches, an e-learning approach proved more cost-effective (see box).[164]

Many programmes tend only to include the costs associated with the initial delivery of the programme. Ongoing maintenance and running costs of the intervention should also be considered, which are important to understanding cost-effectiveness at scale.[165]

The return or value of financial capability interventions should also be considered in terms of both the benefits to the individual as well as the economic significance of the effects. In attempting to quantify the benefits, other studies have used: variance accounted for, effect size in standard deviation, equivalent years of schooling and net present value of increasing learning.

Overall effects may be small, but the economic impact could still be meaningful, particularly for low-cost and scalable interventions. By contrast, a small-scale intervention, particularly one that is tailored to a specific audience and is not scalable (as in the case of interventions aimed at vulnerable young people, see Theme 11), may always seem costly, since set-up, training and possibly evaluation will likely represent a larger proportion of the costs compared to larger-scale interventions.

Moreover, while an intervention may pass a cost-benefit analysis, it may still not be economically viable due to financial constraints (that schools and charitable organisations in particular face).

Interestingly, there does not appear to be a linear relationship between costs and effect sizes[166] – suggesting that a higher investment does not necessarily lead to more improved outcomes. This is consistent with increased teaching intensity that shows marginal returns beyond 10 hours (see Theme 8). The effect is more likely driven by the extent to which the intervention is designed to bring about a change in a specific outcome, reinforcing the need for interventions being designed with specific outcomes in mind.

The approach taken by The Money House is a good example of assessment of benefits and economic impact.[167] They use the HACT Social Value Calculator to assess the benefit to the individual, and consider the wider economic impacts of the intervention, in this case the impact on reducing rent arrears and rates of eviction among vulnerable young people.

With any intervention, there are likely to be social and economic impacts that are not directly measured or cannot be measured. For example, in the case of The Money House example, there are potentially mental and physical health benefits from not falling into debt or being evicted. Thus, financial capability programs are likely to have externalities beyond the target group, such as affecting behaviours of educators, practitioners, parents, and possibly peers. This suggests that any attempt to measure the social and economic impacts of a financial capability intervention are likely to underestimate the returns on investment.

Promising Practice Example

Assessing the costs and benefits of trainer-led versus e-learning models of financial education professional learning for teachers, an impact evaluation showed that both training approaches produced similarly positive outcomes in terms of improved teacher knowledge, skill and confidence to deliver financial education.

Weighing up the relative costs of the two approaches against similar benefits, it would seem that the e-learning approach may be more cost-effective in the long-run than the trainer-led approach, but only where participation at scale can be achieved. The e-learning approach becomes more cost-effective as participation increases, due to the higher proportion of up-front fixed costs. The unit cost per teacher is higher for low participation numbers. On the other hand, the higher proportion of variable costs associated with the trainer-led approach make this a more costly form of delivery for larger numbers of teacher, and more challenging to scale up because of the need to identify and train volunteer (teacher) trainers.

Source: Financial education professional learning for teachers in Wales pathfinder project. Final Evaluation Report. University of Edinburgh Business School. March 2022.

Overall, in determining the cost-effectiveness of programmes, five key criteria should be considered:[168]

1. **Causality** - It should be possible to draw either a direct or indirect relationship between (elements of) the financial capability intervention and specified outcomes.
2. **Ease of outcome change** – How easy is it to effect a change? Effects will be larger when the outcome is easier to change, and the intervention needs to be designed to change the outcome.
3. **Heterogeneous effects** – The effects may not be the same for everyone and could affect some groups differently. Averaging out effects, may make an intervention appear less effective than it really is.
4. **Cost per participant** – If the cost per participant is low the return on investment may be considered large, even with small effect sizes.
5. **Scalability** – To what extent is the programme scalable? This is not just about spreading costs over a larger population, but also about understanding the potential reach and impact of the investment.

Effective Practice Example

The Money House (TMH) by MyBnk provides financial education training to young people aged 16-25 with a focus on those moving into independent living, particularly those leaving the care system and moving into social or privately rented housing.

The experiential learning is delivered within a number of flats, where young people can gain hands-on experience of running a home and managing bills.

During the period analysed, 626 young people were engaged in 145 sessions with a total delivery cost of £585,402, including the cost of operating the flats and supporting the referral process.

The training in TMH mainly aims to benefit young people and improve their lives. Using the HACT Social Value Calculator (that expresses the benefits to the individual resulting from their improved financial standing), the individual benefits provided a social return of £3.36 for every £1 of investment.

Additionally, the TMH training creates benefits for wider society. These benefits stem from young people not incurring debts and the consequences of this on other public sector provision and the economy more widely. A wider cost-benefit analysis focused specifically on the estimation of impacts relating to rent arrears and evictions and sought to address two key questions:

- What is the economic impact of reducing rent arrears?
- What is the economic impact of reducing rates of eviction?

Taking part in TMH training is estimated to reduce the proportion of young people evicted by 5.2 percentage points (64% decrease). Based on a unit cost of £2,188 per eviction associated with written-off rent arrears, TMH is estimated to provide a notional monetised saving of £71,000 for the 626 TMH beneficiaries. With a unit cost of £7,056 per eviction associated with eviction and homelessness, the reduced eviction levels represent a notional monetised saving of £230,000.

There are likely further societal benefits not captured by this analysis, such as non-rental debts relating to non-payment or late payment of council tax, utility bills, TV licence etc. Other analysis by TMH indicated that non-rental debts were £960 on average (more than double rent arrears), but three months following the TMH training there was no indication of outstanding priority payments.

Source: The Money House: Estimating the fiscal benefits to social landlords and other public services (2018)

In summary, future interventions should be guided to incorporate an assessment of cost-effectiveness that takes into account the benefits to the target audience and the wider social and economic impacts, where possible. For interventions specifically targeting children and young people, it may not be possible to quantify economic impacts that are only apparent in the longer-term, which needs to be recognised in any assessment of return on investment. Hence, there is an element of considering financial education among young people as a social good.

5.11. Theme 11: Vulnerable children and young people

Developing financial capability of vulnerable children and young people requires tailored approaches and flexibility

There is a growing body of work examining financial education interventions with vulnerable children and young people. While there are some weaknesses in the robustness of the individual studies, three common themes are evident across the evaluations in terms of factors that contribute to the success of individual initiatives. These are 1. The need for flexibility to make any interventions relevant to the often-challenging life circumstances of vulnerable young adults; 2. the importance of the relationship with those delivering the training and peer support; and 3. incorporating financial education with other activities rather than delivering it as a standalone training event.

There is no single definition of vulnerability, however, MaPS defines vulnerable children and young people are those who are at increased risk of poor financial capability, and/or at risk of disproportionately negative impacts of poor money decisions.[169] This definition recognises that the vulnerability of children and young people often arises from the combination of multiple factors including socio-economic status, life and family circumstances as well as macro influences in society and the economy and how these might affect the services available and ability to access them.

Vulnerability may be temporary or enduring. Some individuals may be at greater risk of poor financial capability and some contexts or situations may expose young people to greater risk of poor financial capability. This points to the need to consider the particular life circumstances and contexts in which young people are making money decisions.

Since 2018, there have been eleven studies and one literature review that have informed this theme. These include: a small number of studies focusing on supporting vulnerable young adults (mainly from disadvantaged backgrounds) to transition to independent living;[170,171,172,173,174] young people experiencing homelessness;[175] young people disengaging from school or not in mainstream education or employment; [176,177,178], young wheelchair users;[179] and those living with health conditions such as cancer[180] or HIV.[181]

Individually, many of the studies are based on low sample sizes, due to the challenges of engaging with vulnerable children and young people. Collectively the studies cover a breadth of vulnerabilities. There is consistent evidence of the effectiveness of interventions to support young people in transition to independent living. Many of these have included a peer or near peer element to the intervention that has proved effective. There is evidence of promising practice among studies of young people with other vulnerabilities (e.g., young wheelchair users and young people with significant health conditions such as cancer or HIV) but a lack of consistent evidence of effectiveness due to these being single studies.

There are, however, a number of high level themes that can be drawn out from the studies. The need to be able to tailor interventions to make them relevant to the life circumstances and experiences of young people is highlighted as a success factor in a number of evaluations of financial capability interventions involving vulnerable children and young people. This is linked to a need for understanding of the particular financial challenges connected to different sources of vulnerability. Wheelchair users for example have a need to understand entitlement to benefits and how future changes in their circumstances might affect their choices in education and employment as they move into adulthood and what this may mean for managing their money. Other young people experiencing homelessness or other more immediate financial vulnerabilities have greater need for help with budgeting and understanding different types of borrowing. Studies with both wheelchair users[182] and cancer patients[183] both stress the importance of being able to develop bespoke materials which are relevant to their client groups' particular needs but also balancing this with not over-emphasising their conditions. Flexibility in delivery is also identified as important. Those with long-term health conditions for example may not be able to engage with events as planned. Similarly, the chaotic lives of those who are homeless and other groups require flexibility over access and delivery. Moneywise activities delivered by Centrepoint[184] which include accredited training, mentoring, workshops and ad-hoc advice provide an example of both content and delivery being determined by the needs and engagement of individual vulnerable youngsters.

Promising Practice Example

The Money Matters pilot delivered by Whizz-Kidz aimed to develop an innovative and untested solution to supporting vulnerable young people: wheelchair users. Whizz-Kids co-created lived experience videos with young wheelchair users on their experiences of money, spending, and financial planning. Some young people were nervous about contributing content because they did not feel like they had the authority to talk about money matters, but generally felt that the project enabled them to share their experiences to help others. The project also helped to uncover the potential need for further, more detailed support on benefits and entitlements and earning money. The aim of the project was to produce content for the Whizz-Kidz website. The effectiveness of the approach remains to be tested with young wheelchair users. The innovative approach shows promise of co-created content based on the lived experiences of young people in specific vulnerable circumstances which, if effective, could serve as a blueprint for other vulnerabilities.

Source: Evaluation of the 'Money Matters' Pilot Delivered by Whizz-Kidz (2022). Ecorys.

The importance of the relationship with those delivering training is highlighted in initiatives with those experiencing homelessness, those with cancer and physical disability[185,186,187]. In the School of Hard Knocks initiative,[188] where financial capability was embedded in a sports programme, the importance of the young peoples' interactions with sports coaches was identified as an important factor. Coaches were able to build strong relationships with young people working through a sports lens on behavioural and self-control issues and scored more highly in the evaluation than teachers with whom pupils had a more formal relationship. The use of peer or near peer educators seem effective in several interventions supporting the transition of vulnerable young people to independent living. [189,190,191] Vulnerable young people can relate to peers who have shared similar life experiences and challenges and are important in engaging participation.

There is evidence that greater engagement in financial capability interventions occurred where they were incorporated as part of other activities or training rather than as standalone sessions on financial education. [192] The School of Hard Knocks[193] is a good exemplar of this, where incorporating financial education within a broader sports programme has yielded benefits. An evaluation of an intervention with cancer patients[194] reports that embedding financial capability within the Cancer Charity's own face-to-face events might have facilitated greater engagement from young people who would not choose to attend a standalone financial capability session. Similarly, a systematic review of financial education for young people affected by HIV[195] suggests that interventions incorporating both financial and health education would be more effective than financial education delivered in isolation.

Further research is needed to add depth of understanding within each of the specific vulnerabilities and to build a consistent body of evidence of what works in those specific contexts, beyond the general themes identified here.

6. Implications for Effective Programme Design

6.1. Opportunities to mainstream/scale-up

Taking into account evidence from this review and the previous review, of consistently positive impact, we identify several opportunities for wider scaling up and mainstreaming.

Train-the-trainer approaches – Evidence of train-the-trainer approaches is consistently effective with a range of practitioners, yet access to training opportunities is not universally available. There are different types of training approaches, with expert-led training potentially the most costly and most difficult to scale up, but may be relevant in specific circumstances (for example, practitioners supporting vulnerable young people). In more mainstream contexts, there are opportunities to scale-up up via online or e-learning approaches, potentially considering a MOOC[iv] model. Train-the-trainer approaches tested thus far have focused on initial training. There are opportunities to consider refresher training, or differentiated training according to practitioner experience.

Supporting parents – There are opportunities to scale-up parenting interventions, building on the effectiveness of Talk, Learn, Do (TLD). Evidence suggests opportunities to explore a differentiated approach to TLD that takes into account differentiated content level and delivery mode (both embedded and stand-alone) catering to the differential needs of parents. Scaling up to the next level will involve identifying key delivery partners with established networks with access to parents.

Experiential learning – There are opportunities to encourage greater use of experiential, practical, hands-on learning as part of funded financial education programmes. Guidance on developing an effective financial education experiential learning opportunity might help to expand take-up and also help to target the effectiveness of experiential learning on behaviour change.

Return on investment – Return on investment analysis should be mainstreamed in all commissioned/funded financial capability interventions. To support such analysis, guidance is needed to help organisations understand what should be included and how to support it.

[iv] Massive Open Online Course is usually a free online course that operates at scale via one of several EdTech platforms (such as FutureLearn, edX or Coursera). Courses typically run for a set period and have some form of moderation, opportunity for peer interaction, and include an option of certification (usually paid for).

6.2. Blueprint for future programmes

Taking into account the insight from both this review and the previous evidence review, we observe a number of characteristics of successful financial capability programmes. These key ingredients may serve as a blueprint for organisations seeking to develop, commission or evaluate financial capability programmes for children and young people.

Feature	Detail
Mapped to a framework or curriculum	Linking or aligning financial capability programmes with broader frameworks/curricular ensures appropriateness, validity and efficacy.
Delivered by trusted, appropriately skilled practitioners	Those delivering financial education need to be skilled/trained for maximum effectiveness and supported by quality-checked resources and guidance
Differentiated/tailored	Taking into account the age and needs of young people at different stages as well as their ability, stage of cognitive development and vulnerabilities.
Including experiential opportunities	With a focus on gaining relevant, practical, hands-on experience (either real world or simulated) that develops key skills in handling money, engaging in decisions, exposure to risk and planning ahead.
Involving parents/families	Recognising the importance of parents and families in early childhood financial capability, programmes should seek to involve parents (such as in homework tasks) and encourage greater child/parent interaction.
Designed with specific outcomes in mind	To have the greatest effect, financial capability programmes need to be clear about the ability, mindset, connection and behaviour outcomes they are aiming to effect. Programmes that have limited or no effect on behaviour often do not specifically target a behaviour change.
Prepare young people for the longer term	Interventions that only tackle short-term knowledge acquisition may have limited usefulness as knowledge needs to be updated over time. Programmes that also address mindset outcomes (such as resilience, self-persistence, self-control, self-efficacy, problem-solving) are equipping young people with the ability to cope into the future. There is also benefit in addressing awareness of cognitive biases that can limit the impact of rational understanding.
Include evaluation	There is a need to test the effects, ideally over the longer term as well, as some of the behaviour effects may not be detected in the short-term.
Are cost-effective and scalable	In mainstream educational contexts, in particular, cost-effectiveness and scalability are relevant. Scalability may not be a goal in non-mainstream and specialist contexts, particularly among vulnerable groups, where tailored and flexible approaches may be needed. However, the cost of the programme relative to its effects need to be understood.

6.3. Areas for further research

During the course of the evidence review, we identified a number of gaps in existing evidence where further research usefully could be directed:

Longitudinal research studies – Few studies track behaviour over the longer-term. There is a need for longitudinal research that tracks the impact of childhood factors over the longer-term, to understand the longer-term impacts of financial education in childhood.

Research exploring the impact of digital apps and digital access to money - Despite the widespread adoption of pocket money apps, there is still a lack of evidence of the effectiveness of them in children and young people's financial capability. While some evidence exists of the effects of budgeting apps and gamified approaches to financial education, research is needed specifically focusing on digital pocket money apps and the extent to which they improve financial capability in young people, also into young adulthood.

Greater focus on feedback directly from young children – Despite the increase in interventions aimed at young children, few studies have directly gathered evidence from young children. Many of the studies focus on parents and involve parent or teacher perceptions of changes in young children. There is a need for more research that focuses directly on young children. Innovative approaches recently tested by MaPS (such as story-telling approaches) offer significant promise in this area.

Exploration of the potential to mitigate cognitive biases – Given the importance of cognitive factors in driving financial capability, it is surprising that few studies have explicitly measured the outcomes of self-control and perseverance among children and young people. Moreover, there is a need for research to help understand the extent to which financial capability programmes can improve awareness of cognitive bias and minimise their impact on behaviour.

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