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The work described in this document was performed as part of the xDELIA project (“Boosting Deliberate Practice and Handling Biases through Immersive Cognitive and Emotional Reinforcement Strategies & Tools”) which is funded under contract No. 231830 of the European Community. The project is a collaboration between CIMNE (coordinating partner), Forschungszentrum Informatik, Open University, Blekinge Tekniska Högskola (Game and Media Arts Laboratory), Erasmus University Rotterdam (Erasmus Centre for Neuroeconomics), University of Bristol (Personal Finance Research Centre), and Saxo Bank A/S. The opinions, findings and conclusions expressed in this report are those of the authors alone and do not necessarily reflect those of the EC or any other organisation involved in the project.

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Executive Summary

The objective of this document is to contribute to a shared knowledge basis on financial capability in the xDelia project by surveying the available resources in a sample of European countries and formulating a working definition of financial capability for the project that is acceptable to stakeholders and actionable in terms of the logic and method of our research activities.

There is no single definition of ‘financial capability’, and it moreover mingles with other close concepts used in the related literature, such as ‘financial literacy’, ‘financial culture’, ‘financial insight’ or ‘financial education’. We review the different concepts and definitions, and formulate and discuss the following definition of ‘financial capability’ to be adopted within the xDelia project: “Financial capability refers to the skills, knowledge, attitudes and behaviour that are necessary to make ends meet, keep track of personal finances, plan ahead, choose appropriate financial products and stay informed about financial matters.” Afterwards, we explore several models of financial capability, since in order to develop financial education initiatives that tackle low levels of financial capability, it is important to have a financial capability model that explains how the various inputs are related to the desired outcomes. For this reason, we analyse several models and identify five different domains and factors that determine an individual’s level of financial capability: making ends meet, keeping track, planning ahead, choosing financial products and staying informed.

In Section 3 we discuss some of the current initiatives designed to provide financial education and improve levels of financial capability. We focus on initiatives in five countries, namely, Spain, UK, Austria, Germany and France. We start by considering the main variables in terms of financial education, and explore in more detail initiatives that have some similarities in terms of our own aims and ambitions, whether in terms of target population, delivery method or subject matter. In particular, we focus on those initiatives that target young adults, make use of technological tools to enhance learning or are designed to have an impact on psychological or behavioural aspects. We observe significant differences in the surveyed countries, which range from the extremely rich financial education provision undertaken in the UK to the poor panorama in Spain, where there is almost no initiative specifically addressed to young adults or making use of new technologies to enhance learning.

Building on the revision of the financial capability literature, we finally reflect on the benefits and limitations of existing provision. This reflection is hindered by the fact that very few financial capability initiatives have been evaluated. Moreover, different authors hold diverse opinions regarding the effectiveness of financial education schemes. Whilst the limited evidence suggests that some modest improvements in levels of financial capability are possible given the right training, other researchers provide stark warnings about the possible difficulties with expecting education to change behaviour. It is thus clearly important to understand how behaviour can be modified or influenced through education, work which has already started and will be summarised in subsequent deliverables.
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List of Acronyms

ANZ       Australia and New Zealand Banking Group Limited
APR       Annualised Percentage Rate
BSFC      Baseline Survey of Financial Capability
CD        Compact Disc
CNMV      Comisión Nacional del Mercado de Valores (National Securities Market Commission)
EBF       European Banking Federation
EC        European Commission
EU        European Union
FE        Further Education
FSA       Financial Services Authority
FSD       Financial Sector Deepening
IEFP      Institut pour l’Education Financière du Public (Institute for Public Financial Education)
HE        Higher Education
LMM       Learning Money Matters
NEET      Not in Education, Employment or Training
OECD      Organisation for Economic Co-operation and Development
pfeg      Personal Finance Education Group
PFRC      Personal Finance Research Centre
SAIA      South African Insurance Association
SEDI      Social and Enterprise Development Innovations
SKM       Sozialdienst katholischer Männer (Catholic Association for Social Services)
TV        Television
UK        United Kingdom
1 Introduction

1.1 Interest in Financial Capability and Financial Education

The recent financial crisis has highlighted the dangers inherent in the complexity of the financial services industry in Europe and across the world. It has also prompted policy makers to consider new ways of protecting consumers from the worst impacts of changes in economic circumstances. Some of this protection must be provided directly by Government through a combination of regulation, consumer protection laws and social security benefits but consumers can also be encouraged to provide some protection for themselves by being aware of the market they are acting in and the consequences of the financial decisions that they make. The skills and knowledge, attitudes and behaviours that consumers need to increase their own financial security are generally referred to as financial capability.\(^1\)

Financially capable consumers will not be immune from financial difficulties, but they can do much to lessen the impact of adverse financial shocks and changing circumstances. Consumers who behave in a capable manner are also less likely to over-commit themselves or make rash decisions that lead to future problems. Unfortunately, recent survey evidence suggests that there are many people who do not have high levels of financial capability (Atkinson, McKay et al. 2006).

Whilst there is much interest in developing ways of improving financial capability, it should be remembered that the ‘financially capable’ consumer is one who exhibits the attitudes, behaviours, skills and knowledge that are deemed to be capable by experts in the field. It is not a universally held belief that consumers should be encouraged to behave in the same way, as de Meza and colleagues pointed out “Even if there is a sense in which people can be shown to be making poor decisions it is of course debatable whether it is appropriate to try to intervene” (de Meza, Irlenbusch et al. 2008). However, the potential benefits to individual wellbeing and economic stability continue to make financial capability an important issue for policy makers.

There are several possible policy responses to low levels of financial capability. The first is to force the market to recognise the failure of people to protect themselves and to legislate and regulate heavily to provide consumer protection. This response has the advantage of providing the same level of protection to all consumers and shifts the perceived responsibility for financial security from individual consumers to financial service providers and Governments. However, individual financial behaviours go far beyond the regulatory boundaries. It is not possible, for example, to provide consumer protection that prevents individuals from going on shopping sprees when their budget is tight, or borrowing to buy presents for Christmas despite knowing that they will be repaying the money all year, and will therefore be unable to save for the following Christmas. Furthermore, some forms of consumer protection actually assume that the consumers are well informed: for example disclosure, the use of APRs and cooling off periods are all designed to protect consumers but anticipate that consumers are sufficiently competent and capable to understand how these features should be used to benefit them (such approaches also assume sufficient motivation on the part of consumers).

\(^1\) The term financial literacy is also used widely, but tends to focus primarily on knowledge and skills, whereas the term financial capability is used to represent a broader concept that includes behaviour and attitudes. The actual definition is discussed later in this document.
The second approach is to provide support for consumers in a crisis. This might include debt counselling, provision for bankruptcy or consumer redress in the case of a dispute. Having such a safety net in place potentially allows for ‘light-touch’ regulation, whilst providing some protection for those who fall foul of the system. However, it does nothing to prevent the stress and hardship that occurs in the run up to such crises, and comes too late to significantly reduce the impact of financial difficulties. Furthermore it is extremely sensitive to economic downturns, requiring increased capacity at a time when personal and Governmental budgets are likely to be tight.

The third approach is the one that we are primarily interested in here. It has been recognised that consumers could be encouraged to better protect themselves by increasing their levels of financial capability. As financial capability is thought to encompass knowledge, skills, attitudes and behaviour, it is implicitly assumed that it can be increased by providing education that increases knowledge and skills and challenges attitudes and behaviour.

There is certainly a great deal of policy interest in financial education. Some of this relates to the way in which it may help to protect people against specific personal finance issues such as over-indebtedness or financial exclusion. For example, two of the ten workshops organised by the EC Financial Inclusion Observatories two year knowledge gathering project entitled Mutual Learning on Financial Inclusion related specifically to financial education. A recent EC funded study on over-indebtedness devotes several pages to the benefit of financial education for children and adults as one of the recommended tools to reduce the incidence of over-indebtedness (Davydoff, Dessart et al. 2008). In other cases, the appeal of financial education is that it can improve financial capability more generally, and so improve levels of financial wellbeing. It is for this reason that the EC has stated its support for financial education, and created a database of provision across Europe.

As well as the strong European support for financial education, interest is evident at national levels and internationally. In the UK, the Financial Services Authority (FSA) leads a national strategy on financial capability, a large proportion of which relates to financial education. This strategy, which began in 2003, had reached some seven million people within the UK by the end of May 2009. The Financial Regulator in Ireland is also leading a financial capability strategy which includes a database of financial education resources. The OECD has its own International Gateway for Financial Education, which includes links to a variety of resources, and the World Bank is interested in the benefits of improving financial capability through the financial education of people in low income countries (The World Bank Group 2009).

1.2 The role of xDelia

Focusing on a broad range of subjects from traders and private investors to ordinary members of the public, xDelia aims to exploit new and emerging technologies to explore financial decision-making processes, including the role of emotion in people’s decisions. Much of financial training has, to date, focused purely on imparting knowledge and increasing people’s understanding. However, people often may have appropriate knowledge, but despite this they go on to be ruled by their attitudes, habits, or emotional states. Investigating this, the project will develop new, technologically supported approaches to training and support for non-formal and informal learning in real-world settings to tackle the challenges faced by people and businesses when they make financial decisions.

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4 http://www.fsa.gov.uk/financial_capability/about_us/history (accessed 7th August 2009)
6 http://www.oecd.org/pages/0,3417,en_39665975_39666038_11_1_1_1_1,00.html (accessed 7th August 2009)
The overall objective of the project is achieved by developing three intervention packages for the practice fields of professional trading, private investment, and financial capability. An intervention package can be thought as composed of software and hardware artefacts (e.g. games and game technology, sensors, user models, etc.), a description of the non-formal and informal learning support approach embodied in the intervention package, recommendations for the appropriate setup of the learning support environment, and guidelines for the deployment and piloting of the intervention.

In the case of the intervention package for financial capability, its development covers five different goals:

- Put forward an actionable and communicable working definition of ‘financial capability’ (done in this document)
- Identify the key characteristics of capable decision making
- Identify suitable research tools and methods for data gathering
- Gather empirical and experimental evidence on attitudes, behaviour, and so on using these research tools
- Identify and filter intervention candidates, and design, implement, deploy and pilot the intervention package – the main outcome.

### 1.3 The Role of This Paper in Meeting the Aims of xDelia

The xDelia consortium includes organisations from 6 countries, and 6 disciplines, and seeks to explore ways of improving emotion regulation across three (overlapping) groups of actors: traders, investors and private individuals. One aim is to find ways of improving the financial capability of private individuals. This paper seeks to provide each of the partners with a comprehensive summary of what is meant by financial capability, and the ways in which organisations currently tackle low levels of financial capability. The paper will also serve a wider purpose of providing information to a range of readers with an interest in keeping up-to-date with financial capability developments in general.

### 1.4 Structure of the Paper

The principal objective of this document is to describe the management structure and processes of the xDelia project. The document is divided into the following sections:

- **Section 1 “Introduction”**: introduces the importance of financial capability and education and the objectives of the xDelia project in relation to the financial capability field.
- **Section 2 “What do we mean by financial capability?”**: discusses the term ‘financial capability’, including the alternative terms such as ‘financial literacy’, ‘financial insight’ or ‘financial education’.
- **Section 3 “Education to improve financial capability”**: discusses some of the current initiatives designed to provide financial education and improve levels of financial capability in the UK, Germany, Austria, Spain and France.
• **Section 4 “Benefits and limitations of existing provision”:** describes the benefits provided by initiatives and the barriers to improving financial capability.
2 What Do We Mean by Financial Capability?

In the context of personal finance, the word capability is used to reflect potential ability. Hence a person who is capable has the necessary skills and knowledge to behave in a particular way, exhibits attitudes that indicate a desire to behave in that way and may, potentially have the resources to exhibit capable behaviour. Using this definition a person might be considered reasonably capable even if they were living on a low income that prevented them from making ends meet each month, and they would be most capable if they also had the resources to ensure that they actually made ends meet. However, the word ‘financial’ takes us far beyond day to day money management, and this needs some additional explanation. In this section we therefore explore the definitions used by leading participants in this field of study and consider a definition that could be used in our own project.

2.1 Defining Financial Capability

Even within the UK, where the term Financial Capability has been adopted by Government, academia and other sectors, there is no single definition. Definitions tend to draw on the analysis of the Baseline Survey of Financial Capability (BSFC) undertaken on behalf of the FSA, but in some cases go on to focus explicitly on particular issues, such as participation in the financial services market, as in the example below:

**Defining Capability** (Para 2.39) Financial capability is a broad concept, encompassing people’s knowledge and skills to understand their own financial circumstances, along with the motivation to take action. Financially capable consumers plan ahead, find and use information, know when to seek advice and can understand and act on this advice, leading to greater participation in the financial services market.

(HM Treasury 2007)

A recent report to the OECD summarises the various definitions of financial capability and discusses the working definitions used by those seeking to measure levels of financial capability in the population (Kempson and Atkinson 2009 (forthcoming)). The main themes that come out of this summary suggest that financial capability is generally defined in terms of:

- Abilities, skills and knowledge; and
- Affective, appropriate and informed actions or decisions (which presumably include decisions not to act).

There is a general consensus that one of the factors of interest is the use and management of money. Some definitions specify a time horizon and/or outcome, such as *lifetime financial security* and to *improve their financial well-being* (SEDI 2005), but the focus is more generally on the tools required (skills, attitudes etc) and the processes (including actions and decisions).

As noted in the OECD report, the development of survey instruments to measure levels of financial capability has required the specification of an operational definition that identifies the specific aspects of personal finance that are covered by the word ‘financial’ as well as the indicators of capability. The FSA in the UK commissioned a detailed exploratory study to inform their operational decision and

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came to the conclusion that financial capability should encompass four domains of personal finance and should aim to capture behaviour and attitudes as well as skills and knowledge (Kempson, Collard et al. 2005). These conclusions guided the design of a quantitative survey instrument, and subsequent analysis of data from a nationally representative sample. The initial domain headings were fine-tuned once the data was analysed, and are now referred to as:

- **Money management** (which includes making ends meet and keeping track of finances);
- **Planning ahead** (including provision for retirement, use of insurance and methods for protecting against financial shocks);
- **Choosing products** appropriately; and
- **Staying informed** of financial matters (which includes basic financial knowledge).

These four aspects now provide observers, policy makers and practitioners in the UK with an operational definition of ‘financial’. The potential ability, or capability comes from the attitudes, skills and knowledge (and possibly from socio-demographic variables such as income and education), whilst some of the outcomes and indicators of capability are behavioural.

A new survey undertaken in Canada⁸, one in Ireland (Financial Regulator 2008) and the most recent of the regular Financial Literacy surveys in Australia (ANZ 2008) have all taken this UK operational definition into account. We will also adopt it as our foundation for exploring the role of technology enhanced learning in improving levels of financial capability. Our operational definition thus began as:

Financial capability refers to the potential ability to make ends meet, keep track of finances, plan ahead for future financial security and choose appropriate financial products. A financially capable person will stay informed about financial matters, have a positive attitude towards financial planning and behave in ways that are consistent with their financial goals.

In its final, simplified form, it reads:

Financial capability refers to the skills, knowledge, attitudes and behaviour that are necessary to make ends meet, keep track of personal finances, plan ahead, choose appropriate financial products and stay informed about financial matters.

The more detailed definition has some important elements that are worth discussing in more detail:

- By specifying that capability refers to POTENTIAL, we create an opening for interventions designed to increase that potential
- The word POTENTIAL also allows us to acknowledge that some socio-economic characteristics may be barriers to certain behavioural outcomes without necessarily reducing potential
- The use of FINANCIAL GOALS is useful in that it takes us away from the entirely normative view of financial capability (such as “it is right to save”, “people must not borrow”) to an individual view of personal finance where we aim to provide people with the tools to meet their own goals.

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⁸ The fieldwork is complete, but the results have not yet been published. See the following website for updates on this survey: [http://www.fcac-acfc.gc.ca/eng/default.asp](http://www.fcac-acfc.gc.ca/eng/default.asp)
2.1.1 Other terms in common usage

Whilst we have opted to use the term ‘financial capability’ to reflect the skills, knowledge, attitudes and behaviours that we are interested in, we are mindful that other terminology is being employed to reflect concepts that are not dissimilar from financial capability as we perceive it. In some cases, the various terms in use signal the ways in which particular English words are understood by an international authorship/readership. In other cases, they suggest the particular emphasis of studies: for example we have already briefly touched on the use of ‘financial literacy’, which typically refers to just the skills and knowledge.

As noted in the recent OECD report, the PattiChiari Consortium and The European House Ambrosetti in Italy have recently undertaken a study entitled “The first scientific measurement of financial culture in Italy”. Their survey instrument includes questions that reflect each of the four domains used in the UK to a limited extent, suggesting that financial culture is referring to a concept not entirely dissimilar from financial capability.

CentiQ, in the Netherlands, have also been studying a concept similar to that of financial capability, which they have termed financial insight. They don’t provide a definition, but describe a person with financial insight as follows:

People with financial insight are able to arrange their financial affairs. They have knowledge in the area of borrowing, saving and planning, they know how they should deal with money in their daily life and can manage their affairs in a responsible manner. A person with financial insight will exhibit behaviour that coincides with acting on the basis of knowledge and experience. A person with financial insight also knows what risk he takes in certain financial decisions. This is in line with the objectively measurable risk.

(CentiQ 2007)

This clearly describes skills, knowledge and behaviour relating to money management and planning ahead, two of the domains focused on in the UK survey.

There are several other terms that are common in the personal finance literature. These include financial wellbeing, financial responsibility and financial health; discussion of each of these is beyond the scope of this report.

The use of alternative phrases or terminology serve to strengthen our belief that the words used to identify the concept that we are interested in are less important than the operational definition. We need to know what we consider to be financial capability, and what we consider to be out of scope. Only when we have a clear idea of both the aspects of finance that are relevant to our study and the components of capability that we want to focus on can we begin to consider how we might influence levels of financial capability.

We turn now to another widely used phrase that could benefit from some clarification. That is the term financial education.

2.2 The Relationship Between Financial Capability and Financial Education

In her review of the literature relating to the effectiveness of youth financial education, Henn McCormick comments that:
Johnson and Sherraden (2006) are among the latest to suggest that the term financial capability is intended to include the concept of education but also access to financial services and institutions, arguing that knowledge alone without access to the resources and services of financial institutions, especially for those coming from under- or unbanked communities, will not ultimately allow people to choose a financially literate lifestyle.

(Henn McCormick 2008).

We agree that financial inclusion is an important element of financial capability, albeit one that is not necessarily within the control of individuals. However, we would argue that financial education should not been as a component of financial capability - rather it is a means by which levels of capability can be improved.

At its most basic, we can define financial education as one method by which financial capability could be improved. However, there are a great many initiatives that are described as financial education, and so it is worth exploring this in a little more detail.

### 2.2.1 Defining financial education

The definitions of financial education vary, as do the definitions of financial capability. This section draws on explicit definitions of financial education as well as statements of aims or intended outcomes, and therefore inevitably overlaps with the later section on the outcomes of education initiatives. It is important to keep in mind that here we are trying to form a common understanding of what financial education means, whilst in the later section we are interested in what it might achieve.

In 2005, the OECD produced an important book on the subject of ‘Improving Financial Literacy’. They set out to look at a wide-ranging set of financial education initiatives stating that their "definition of what constitutes financial education is intentionally kept broad". They used the following detailed definition:

Financial education is the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being.

(Organisation for Economic Co-operation and Development 2005)

This definition is indeed broad, in the sense that it covers improved understanding through information, instruction and advice. It suggests that financial education improves knowledge skills and confidence and the term ‘effective actions’ presumably suggests that the author anticipates that some education could improve behaviour.

In their introduction to a communication on financial education the EC used a similar, but shorter definition:

Financial education enables individuals to improve their understanding of financial products and concepts, and develop the skills necessary to improve their financial literacy; i.e. to be aware of financial risks and opportunities and to make informed decisions in their choice of financial services. It is a life-long issue.

(European Commission 2007).
This definition refers to the concept of financial literacy and is relatively narrow. It focuses almost entirely on the acquisition of skills and knowledge and does not seem to anticipate improvements in behaviour or attitude. It also makes clear that the EC are interested in the interaction between consumers and financial services.

A number of other organisations have sought to develop a working definition. Consider, for example, the South African Insurance Association (SAIA) approach:

Consumer education is the process of gaining knowledge and skills to manage personal resources and to make decisions that affect individual well-being and the public good. (SAIA 2007).

The SAIA considers that the outcome of such education should be:

The development of consumers skills, attitudes, knowledge and understanding of the financial sector and its products and services so that they are able to use consumer information effectively. (SAIA 2007).

The definition suggests that the purpose of financial education is to provide knowledge and skills, and that the outcome of this will be improved behaviour in terms of financial management and decision making. The stated outcomes are rather narrower, suggesting a primary objective similar to that of the EC, of improving interactions between consumers and financial services. This narrow focus is perhaps unsurprising given the purpose of the organisation.

We are seeking a definition of financial education that clearly encapsulates the working definition of financial capability discussed above. Such a definition would need to go beyond product choices to take into account the other domains of capability. We also believe that it is necessary to state that the education should lead to behaviour and attitudinal change. In work undertaken on behalf of FSD Kenya, Atkinson recommends ‘a definition of financial education that emphasises the primary objective of changing attitudes and behaviour and increasing knowledge in order to protect individuals from future financial hardship’ (Atkinson 2008). This brings us closer to a definition that can be used to set parameters for this project, but still leaves us uncertain of the domains that should be addressed by such education.

With the xDelia project, we hope to create an approach to learning that will help people to control unhelpful emotional and psychological responses to financial decision making and change their behaviour. To us, then, financial education needs to be a concept that encapsulates the idea of self-awareness leading to healthy attitudes towards money both now and in the future, emotional intelligence and financial wellbeing.

Drawing these statements into a definition, we could say that:

Financial education is intended to lead to improved financial capability through increasing knowledge and skills. The skills of relevance range from practical numeracy and literacy through to self-awareness and the ability to regulate one’s own emotions. The ultimate goal of financial education is to ensure positive (financial) behavioural outcomes that enable individuals to achieve their own financial goals.
2.3 Beyond a Definition: a Financial Capability Model

In order to develop financial education initiatives that tackle low levels of financial capability, it is important to have a model of financial capability that explains how the various inputs are related to the desired outcomes. Xiao has defined financial behaviour in a particularly broad way, as “any human behaviour that is relevant to money management” (Xiao 2008), but few writers have attempted either a descriptive definition of the inputs that develop financial capability or a behavioural model of financial capability. Here we begin by positing an economics-based model of financial behaviour that might indicate high levels of financial capability, before considering the psychological components. A person behaving in a completely competent manner might be assumed to adhere to the following instructions:

- Identify both short term and longer term financial goals of yourself and your family (if relevant)
- Identify the financial tools, information and learning opportunities necessary to accomplish these goals
- Recognise and protect yourself from the risks that may prevent you from progressing towards your goals
- Behave in a way that is consistent with your financial goals
- Adapt to new information, circumstances and products that may either change the way in which your goals are achieved or change the goals themselves.

This model assumes that a person starts in early adulthood with a plan for the future in terms of consumption, income, wealth and protection. In this case, short term goals may be inconsistent with making ends meet, but the co-existence of longer term needs ought to engender an interest in planning ahead, keeping track, choosing appropriate products and staying informed of financial matters. Initial adjustments in behaviour in order to be consistent with these longer term goals should lead to making ends meet at some early point since early risk taking or heavy borrowing would lead to a reduced likelihood of achieving later goals.

There are several problems with this approach, not least of which is that the model is describing competent behaviour, rather than financial capability itself (which, according to our definition, includes attitudes, skills and knowledge as well as behaviour). Furthermore, it is apparent that there are many barriers that may prevent people from behaving in this way. These cross the economic (including access to information and uncertainty), behavioural and psychological spectrum and include the limited time available to individuals to fulfil the necessary tasks to ensure high levels of capability.

A more consumer centred approach to modelling financial capability was taken by the Personal Finance Research Centre (PFRC) when they developed the Baseline Survey of Financial Capability for the FSA in 2005 (Kempson, Collard et al. 2005). They took as their starting point an early, pedagogical framework of financial capability that had been designed for work with adults who lacked basic numeracy and literacy skills (Basic Skills Agency 2004).

The model originally developed by the Basic Skills Agency suggested that knowledge and understanding were necessary prerequisites of the skills needed to be financially capable, and that the ultimate outcome was not just application of those skills but also a recognition of rights and responsibilities in terms of their personal finances, as presented below.
PFRC suggested that

Knowledge and skill alone are not enough to ensure that people manage their financial affairs appropriately. They must be prepared to take whatever steps are necessary to apply their knowledge and to exercise their skill. This is largely a question of attitude. (Kempson, Collard et al. 2005)

The model that these authors ultimately sought to test can be represented as follows:

This model took into account the wider literature as well as the pedagogical framework developed by the Basic Skills Agency. It is basically saying that the financially capable consumer has some combination of i) skills, ii) knowledge and understanding, and iii) confidence and attitudes that results
in financially capable behaviour. In this model, the behaviour is the outcome, and it is dependent on both personal traits and learning\(^9\).

The PFRC report goes on to discuss ‘attitudes’ in a way that suggests that the word is being used as shorthand for a range of psychological and practical factors. For example, it suggests that:

> It is possible to identify three elements of a person’s attitude towards financial capability. They must be:
> 1. willing to invest the time and other resources required to apply their knowledge and to exercise their skill;
> 2. able to gain access to information, advice and other resources; and
> 3. confident enough to exercise their skills and to act on the results.

(Kempson, Collard et al. 2005)

These three elements actually have much in common with the economic model that we present above. The second bullet point in particular is very close to the idea of a rational economic agent with full information.

The PFRC paper also refers to the ‘X’ factors that determine an individual’s level of capability. Focus group participants felt that these might include:

> …whether they were organised; able to resist temptation; likely to plan for the future; prepared to shop around; likely to keep themselves well informed; and prepared to assert their rights. Knowledge, understanding and skills alone were not enough – one had to be prepared to act on them. (Kempson, Collard et al. 2005)

These X factors include a mixture of particular aspects of personal finance that were ultimately created into ‘domains’ of financial capability (planning for the future, keeping informed) and psychological factors such as being able to resist temptation. The psychological factors were not linked to the specific aspects of financial capability identified by the research. However, we believe that there is some benefit in considering each aspect in isolation, to properly separate out the behaviour, outcomes and psychological elements. We summarise these below, first describing the behaviours before drawing on the analysis of the BSFC, and then considering wider evidence:

**Making Ends Meet**

*Behaviour categories:* budgeting, saving  
*Behavioural actions:* drawing up a weekly/monthly budget and sticking to it; putting an amount of money into a savings account to smooth income flows.  
*Positive outcome(s):* making ends meet (i.e not running out of money before the next pay day).

The additional explanatory variables included in the BSFC factor scores are: having a positive attitude towards saving and a negative attitude towards spending on credit.

So, to be an ‘expert’ at making ends meet, according to the BSFC you need to be an active saver and budgeter with a positive attitude towards saving and a negative attitude towards spending on credit.

Psychology suggests that you also need to have flexible mental accounts (remembering that money is fungible) and a resistance to marketing pressures.

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9 The final analysis of the BSFC includes certain behaviours within the financial capability measures, suggesting that full capability can only be achieved with evidence of positive outcomes.
Choosing Financial Products

Behaviour categories: making appropriate product choices
Behavioural actions: seeking advice, shopping around, collecting information, making comparisons on key features, reads the terms and conditions before signing contracts
Positive outcomes: holding products that are appropriate (although this is not included in the financial capability score, it seems to be implicit in the items that are included)
Additional explanatory variables: none identified

Procrastination is a potential barrier to becoming financially capable in this domain. An overwhelming choice can also cause difficulties and the apparently competitive nature of some provision may lead consumers to the heuristic/conclusion that all products are the same.
Describing each of the domains in this way helps us to identify the positive behaviours that we are trying to develop and some of the possible barriers that we might face. For example, in an intervention designed to improve the extent to which people make ends meet we might want to look at ways of helping people to stick to their budget by addressing the major hurdle of impulse buying; whilst a solution to poor product choice might be to help the learner explore ways of comparing products that simplifies the market place so that the choice becomes less overwhelming.

We have found no evidence that such an approach has been taken to designing the current education initiatives. We discuss the findings of our exploration of the current provision in the following section.
3 Education to Improve Financial Capability

In this section we discuss some of the current initiatives designed to provide financial education and improve levels of financial capability. We focus on initiatives in five countries, namely, Spain, UK, Austria, Germany and France.

We start by considering the main variables in terms of financial education, and explore in more detail initiatives that have some similarities in terms of our own aims and ambitions, whether in terms of target population, delivery method or subject matter.

We are using the operational definition of financial capability discussed above:

Financial capability refers to the skills, knowledge, attitudes and behaviour that are necessary to make ends meet, keep track of personal finances, plan ahead, choose appropriate financial products and stay informed about financial matters.

As for financial education, we are considering those initiatives that aim to improve financial capability through increasing knowledge and skills. The skills of relevance range from practical numeracy and literacy through to self-awareness and the ability to regulate one’s own emotions. Many current financial education initiatives are primarily interested in developing knowledge and practical skills such as drawing up a budget or understanding interest rates, and so our discussion will include these kinds of initiatives. However, our particular focus for this project is on the potential to improve financial capability by working on the psychological barriers, and so we will pay particular attention to projects with a similar focus, wherever possible.

The definitions laid out above allow us to set parameters so that we know which initiatives to review, and which are out of scope. For example, a course that covers topics such as share dealing, identify theft or money laundering laws may well be considered to be a personal finance course, but it would not fit within our parameters as it does not directly related to the aspects of financial capability identified in the definition. Similarly, a service that supported people in financial difficulties would not be thought of as financial education if it provided a problem solving service rather than teaching people how to solve their own problems.

3.1 The Main Variables

Financial education varies in terms of the people it is aimed at, the subject matter that it covers, the way in which it is delivered and its intended outcome. In this section we will discuss these in turn before considering which ones are most appropriate to our study.

3.1.1 Target groups

One of the first decisions in designing initiatives to raise levels of financial capability is which groups in the population to target.

Children and young people have been seen as an important target for financial education in many countries (Habschick, Seidl et al. 2007; Atkinson 2008). But there are also established strands of
financial education aimed at adults more generally, and at particular groups such as employees or new parents. Furthermore, Habschick et al reported that a quarter of all schemes in the EU27 were developed for people with either low income or low levels of education.

One of the advantages of targeting particular groups rather than aiming to reach the whole population is that it is possible to link into existing channels of educational provision or information. For example, children and young people can be reached through schools and colleges, whilst new parents (and mothers in particular) can be reached through the relevant health services. Workplaces can be recruited to run financial education seminars, and other groups such as adults with caring responsibilities can be reached through trusted intermediaries from existing community services.

There may be other advantages to targeting particular groups. Financial education designed for a specific sector may be tailored to meet their needs, both in terms of content and delivery. It is also easier to identify suitable control groups when undertaking evaluation studies of targeted schemes, since the treatment and control group are well defined. However, it should not be assumed that everyone within a target group will face the same issues, or have the same level of financial capability. Neither will they all be motivated to change to the same extent. It is for this reason that financial education is often designed to take advantage of ‘teachable moments’, as discussed below.

**Reaching the right people at the right time**

People do not necessarily recognise the benefits of financial education, and demand can therefore be low (Meier and Sprenger 2008). It is worth considering how and when to reach the target recipients of financial education, what the appropriate delivery method might be, and what topics could realistically be covered. One way to overcome the problem of low levels of take-up is to provide financial education as part of compulsory schooling. However, it is clear from the surveys of financial capability that young people and adults continue to need help with their personal finances once they move out of education.

It has been suggested that financial education in adulthood should target people at teachable moments; that is at moments when they are likely to welcome information, advice or education (Lerman and Bell 2006; Parrish and Servon 2006). Such moments might include moving out of the family home, marriage, starting college or going through separation and divorce. They may lead to a direct need for (potentially new or different) financial services such as a mortgage or a student loan, but they may also reflect a time when an individual recognises that they could benefit from improved financial knowledge and skills.

Willis has argued that teachable moments are moments of vulnerability (Willis 2008). It is certainly the case that there are times when individuals are vulnerable, and when financial education would not be an appropriate response, such as when someone is made homeless, or in cases of over-indebtedness. However, other events trigger the need for information without undue urgency (or at least over a known time period); and it is these events that most clearly lend themselves to targeted education provision. Such events might include the end of formal education, the purchase of a first home or a first pregnancy.

**3.1.2 Subject matter**

Engaging learners is only part of the challenge of providing beneficial financial education. It is also essential to cover the right subjects in the right amount of detail. This will vary by target audience, and may also be related to the engagement process – for example the subject may be driven by the teachable moment. However, there are some generic approaches that are worth discussing, and we can draw some general conclusions about the typical subject coverage.
In 2006, Lerman and Bell wrote a short paper on Financial Literacy Strategies. In it they suggest that the financial education should first of all identify “which skills are necessary for every adult to master”. They suggest that education of young people may start with concepts such as “time horizons, comparing borrowing rates and rates of return, and common life cycle choices”, and should incorporate ‘learning by doing and ... behavioural approaches that not only improve knowledge, but also stimulate people to choose wisely” (Lerman and Bell 2006).

There is very little information available about the strategies employed by existing initiatives to identify appropriate subjects for financial education. Instead we must rely on summaries of the topics covered to identify which are seen as most relevant. For example, the range of subject categories covered in the financial education review by Habschick et al can be summarised as follows:

- Money (basics, the meaning of money, spending and our relation to money)
- Bank accounts and banking
- Budgeting
- Credit and debt; overindebtedness
- Investment, saving and retirement;
- Assurances/insurance and risk
- Consumer protection (e.g against internet scams)
- The financial implications of life stages

Notice that this is very similar to the range of topics that Thoresen recommended should be included in the provision of Generic Financial Advice in the UK:

- Weekly or monthly budgeting
- Saving and borrowing
- Protecting and insuring the individual and the family
- Retirement planning
- Understanding tax and welfare benefits better
- Translating technical financial language into something people understand.

(Thoresen 2008)

To some extent the subjects in the two lists above also represent the aspects of financial capability discussed above. Some subjects may lead to improvements in more than one aspect of financial capability: making ends meet (money basics, spending, saving, operating a budget, credit and debt); keeping track (banking, drawing up a budget); planning ahead (savings, investments and retirement, financial implications of life stages); choosing products (retirement, insurance, risk, savings and investments) and staying informed (translating technical language, consumer protection).

It seems that the most common topics covered by financial education are money management and financial planning (Habschick, Seidl et al. 2007). However, as mentioned above, the subjects covered by financial education initiatives depend to some extent on the target group. Those initiatives primarily focused on young children may start by developing an understanding of the nature of money (Habschick, Seidl et al. 2007), whilst initiatives in the workplace often focus on pension provision (Atkinson 2008).

It is interesting to note that both money management and financial planning are behavioural aspects of financial capability. Both rely on undertaking appropriate actions at least as much as they depend on knowledge. This suggests that financial educators are focused on changing behaviour at least as much, if not more, than increasing knowledge.
3.1.3 Delivery mechanisms

Financial education can be provided through a wide range of delivery mechanisms and in a range of settings or locations. At the more traditional end, children may be taught about financial matters by a teacher in a classroom, using textbooks and printed materials. Modern interventions include online interactive games that can be played anywhere with an internet connection, or used as part of a classroom activity.

Drawing on Habschick et al (2007) and Atkinson (2008) we suggest that the material used in delivering financial education typically falls into the following categories:

- Printed materials (leaflets, brochures, workbooks)
- Observed media (radio, film, TV, theatre)
- Interactive media (internet, computer games, CD-Roms)
- Verbal delivery (teachers, lecturers, trainers, one-to-one guidance face to face or via telephone/internet)

Our particular focus for this paper is the use of interactive media, since this will most naturally include technology enhanced learning approaches.

The location of financial education provision can vary across target groups, delivery mechanisms and subject matter. Whilst some education will be delivered in classrooms or training centres, Habschick et al also identified delivery organisations that provided education in their own offices, in advice centres, direct to the community through roadshows, at home or in banks and some that only offered virtual provision through websites.

It is not unusual for initiatives to employ a range of delivery mechanisms in combination, such as interactive media and printed materials. Some initiatives also make use of a range of locations, perhaps starting in the classroom, but venturing out to banks or advice centres to provide real life experiences. This was the approach used by Fairbridge, a UK charity that originally piloted financial capability training in 2005 and continues to provide it to excluded young people in the UK (Atkinson 2005). Mixed delivery methods have also been discussed by Lerman and Bell as a means of directly influencing behaviour:

One extension beyond educating people at decision points is to link education with steps that deal directly with behavior. For example, instead of simply discussing the reasons why people should have bank accounts, programs have made agreements with banks to provide special account options and to sign up people at the site. Other programs take a recess, give bus fare and directions to participants, and have them open accounts at specific moments. (Lerman and Bell 2006)

3.1.4 Intended outcomes

Policy makers and commentators typically have high expectations of financial education. The European Banking Federation (EBF), whilst making clear that financial education cannot be a substitute for consumer protection, introduces the importance of financial education by describing a range of potential outcomes that we suggest could be modelled as follows (European Banking Federation 2009):
This range of outcomes indicates that the EBF assumes that empowered consumers will ultimately change their behaviour. In her critique of the levels of evidence of evidence about how well financial education is working, Willis also shows that the standard model of financial literacy education assumes that education ultimately leads to good financial decisions and behaviour (Willis 2008).

SEDl, in Canada, have suggested that financial education has rather different intended outcomes from other kinds of education. Interestingly, they appear to stop short of assuming that the education can result in full competency or capability, but only that it can help people to move towards self-sufficiency:

... this review departs from the assertion that education is about fomenting positive, demonstrable change in the lives of individuals. In the case of financial capability building, this change is towards more financial self-sufficiency (SEDl 2007).

Another Canadian observer, Larry Orton of the Canadian Policy Research Networks states in a subheading within his chapter entitled ‘The Importance of Financial Literacy’ that “Widespread financial literacy can contribute to social cohesion” (Orton 2007). His claim is based on the expectation that financial education can reduce ‘social and economic exclusion’, support the financial sector and improve important aspects of the economy including aggregate demand.

Bruyndonckx suggests several desirable outcomes of financial education which all focus on the relationship between individuals and money. He pays particular attention to the abilities of individuals to spend in a controlled manner and to have a healthy psychological relationship with money.

The review of financial education literature undertaken by Gnan et al suggests that most financial education seeks to improve literacy (increasing financial knowledge), create understanding, and build decision making capability (Gnan, Silgoner et al. 2007). This knowledge, understanding and decision making is all in relation to financial products, according to the authors. They comment that additionally some schemes supplement the aim to improve knowledge with a desire to influence how consumers act through improved confidence, communication and an understanding of consequences and responsibilities.

Gnan et al also note that the goal of the education may actually be far broader than the intended outcomes for individuals. So whilst the education may designed to ensure that consumers are better
informed, the goal may be to enhance financial market performance, shape the economy or improve social cohesion.

Nibud, in the Netherlands has developed a financial education initiative for families with children aged six and up (Nibud 2008). It suggests a series of learning goals for the age groups 6 to 9, 10 to 12, 15 to 15 and 15 to 18. Nibud appears to be unusual in that it has identified a set of core financial competencies for young people aged 19 to 23, which it presents as the desired outcome of the earlier education ‘Nibud expects young adults to be financially independent now and in the future’. These competencies are described as follows:

- Young adults are able to live independently, meeting all their short and long term financial obligations, balancing their household budgets and they have equity.

(Nibud 2008)

Some authors have made clear that they recognise that the intended outcomes of financial education may be difficult to achieve, even if they lack any evidence of differential impact. Suggested reasons for this perceived difficulty range from the psychological through to more economic considerations. Bruyndonckx, for example, noted that:

- a good financial education programme, even when organised in the best conditions, does not necessarily produce positive behaviour in everyone. The ‘preconfiguration’ of our scale of values and past experiences..will remain a very difficult obstacle to overcome.

(Original emphasis: (Bruyndonckx 2007))

The Federal Reserve Bank of Cleveland summarised a comment by Vice Chairman Roger W Ferguson, Jr, suggesting that ‘financial’ education is only one of the variables that affect financial well-being: other factors, such as employment, income, age, and health, also affect an individual’s financial situation” (Federal Reserve Bank of Cleveland Undated). Willis also made it clear that good outcomes may not be possible given “resource constraints, job loss, disability, discrimination, and natural disasters” (Willis 2008).

In a similar vein, O’Connell has noted that neither the intention nor the outcome of a specific course may be to change behaviour, suggesting that “while behaviour change may be the ultimate goal of financial education, improvement in skills or knowledge may be a valid goal of a specific financial education programme” (O’Connell 2007). However, it is interesting that she has drawn the conclusion that behaviour change may be the ultimate goal.

Lyons et al have also discussed the fact that behavioural outcomes will almost certainly be limited amongst people on low incomes (Lyons, Palmer et al. 2006). Unusually, they have also touched upon the difference between immediate outcomes and the potential for longer term changes, suggesting that “participants’ financial situation may eventually improve to a point where they can successfully incorporate…the… lessons into their everyday lives”. They do not indicate whether this is one of the intentions of financial education, or how it might be captured.

Our focus will be education aimed at young adults, initiatives that make extensive use of technology, and those with a particular focus on changing behaviour or regulating emotions.
3.2 Financial Education Initiatives Targeted at Young Adults

3.2.1 The United Kingdom

The UK has a national strategy of financial capability that explicitly targets children, students and other young people (http://www.fsa.gov.uk/financial_capability). One of the benefits of this national strategy is that it has been able to develop a common understanding of financial capability across the various streams of delivery. Furthermore, the FSA is able to stress the difference between education and advice, and make sure that educators do not feel pressurised into providing services such as debt counselling services or investment advice. This clearly delineates financial education from crisis counselling or (regulated) product purchasing advice.

The financial education provision in UK schools for children and young people aged 4 to 19 years is overseen and funded largely by the FSA, but led by a national financial education charity, pfeg under the heading Learning Money Matters (LMM). The aims of LMM are focused at three levels – pupils, teachers, and schools. At a pupil level, LMM aims to improve knowledge, understanding and confidence. Teacher level aims include providing teachers with the support and resources they need and helping them to develop the confidence and competence to deliver financial education. The school level aim is to develop appropriate ways of delivering financial education across the curriculum.

Pfeg does not work directly with children, but supports teachers in the classroom by providing free advice, support and teaching materials. It also quality marks all the resources that it makes available in order to ensure that it’s own standards are maintained. This makes it easy for teachers (and others) to identify provision aimed at young people, and for teachers to tailor their teaching to meet the needs of their pupils by drawing on a range of resources from different sources.

Outside of schools, the FSA uses a range of methods to reach young adults:

- A dedicated website is available for young adults (www.whataboutmoney.info) which has been developed with input from young people to make sure it is relevant and appropriate.
- They have produced a resource for use in Further Education (FE) colleges (which typically provide post 16, pre university education) and they provide financial support to delivery organisations within each of the home nations. This resource includes case studies, and some information about the actual outcomes for students during early pilots.
- Higher Education (HE) establishments (universities) can make use of FSA resources to develop their own Money Doctors scheme, a system of student mentoring within each university.
- A train the trainer scheme has been set up by the FSA to ensure delivery of financial education through trusted intermediaries to young people who are socially excluded because they are not in education, employment or training (NEET). This provision also includes a dedicated website for trainers (http://www.ypam.org) and includes links to resources which include toolkits and short videos made by NEET young people and a TV personality.

10 The FSA make it clear that financial capability incorporates the five aspects discussed above, but it seems that this has not yet been universally accepted in the UK, as some organisations still refer to financial literacy or focus on particular aspects of financial capability, such as choosing products.
11 The outcomes include self reported increased confidence and knowledge plus behaviour change. However, there is no information about the evaluation process, and so it would not be appropriate to either generalise from them or base expectations on them.
Young adults may also be reached through the other FSA financial capability streams, including workplace provision, guides for new parents and organisations working with hard to reach groups.

Because of the overarching role of the FSA in delivering financial education to children and young adults in the UK we have decided to use the word provision rather than initiatives to describe the individual schemes available. As noted above, the initiatives may well draw on provision from a number of sources.

It is common for UK provision targeted at young adults to state that it aims to help them learning how to manage money, or how to improve their money management skills. Some also aims to improve financial decision making. Typically, subjects covered include budgeting, borrowing and debt, suggesting that the topics are often picked in response to observed problems in adulthood (a lack of active money management and over-borrowing), rather than as a scaffold with which to support positive financial behaviours.

A wide range of delivery mechanisms are used for the provision available in the UK. Some is based primarily on printed materials, others use CD-Roms or online materials, including video and audio files, games and budgeting tools. Some provision is through external speakers (such as qualified accountants or bank staff) visiting classrooms or other venues. The time commitment of the various provisions also varies. The formal courses provided by ifs learning (see http://www.ifslearning.ac.uk/financial_capability/index.cfm) can be full- or part-time financial capability courses, whilst some of the games available online take less than 15 minutes to complete. Unfortunately there does not appear to be any research to suggest how long is necessary to improve financial capability, or which method of delivery is most appropriate for young people.

Neither intended nor observed outcomes are stated explicitly on any of the resources that we reviewed from the UK (although the teacher guidelines for FE do include some discussion of outcomes), but the aims suggest that the final outcome might range from better ‘awareness’ and ‘understanding’ through to ‘confidence’. One formal course aims to teach students how to become ‘competent’ money managers.

Most of the UK providers that we have reviewed stop short of stating that they aim to influence or change behaviour. Just one, Money Maestro12, appears to aim at influence behaviour, and this seems to be based on a traditional economics perspective, rather than a psychological approach: “The programme focuses on the behavioural side of finance, teaching pupils how to think objectively about money and make rational decisions.” Whilst most do not state an intention to change behaviour, several others may help young children and teenagers to form appropriate behaviours. For example, schemes that discuss saving habits, borrowing or budgeting may encourage certain beneficial behaviours. Indeed aiming to improve money management and financial decision making (as mentioned above) indicates an implicit desire to develop appropriate behaviour.

Some of the provision that encompasses interactive media appears to be designed to give users an impression of the causal relationship between behaviour and outcomes. For example MoneySense for Schools13 and Play your Prepaid Card Right14 include games which have incorporate logical outcomes to the decisions made within the game. We discuss the use of technology further in section 3.3.

12 https://www.money-maestro.co.uk/index.aspx (accessed 21/09/09)
3.2.2 Germany

Germany is an extremely active country in the financial capability field, and the major part of initiatives address precisely young people. Most initiatives are motivated by the aim of reducing overindebtedness of German population. Surveys done in the last years have shown that a considerable part of German households are indebted\textsuperscript{15}, and the number of adolescents who are indebted is also steadily growing\textsuperscript{16}. It is feared that children who have experienced overindebtedness situations at home (e.g. relying on overdraft facilities to make ends meet) emulate their parents in the future and incur in new overindebtedness episodes.

A wide range of organisations implement initiatives to enhance the financial education of German citizens. In contrast to UK, there is no central institution that oversees fincap programmes (as does the FSA), but an extremely wide variety of entities undertake different projects: consumer agencies, banks, debt advice entities, associations linked to churches, universities, or companies.

We have also observed a great variety of delivery mechanisms in the initiatives we have reviewed. Some initiatives provide materials to be worked on at classrooms as part of students' syllabus (e.g. within the economics subject). Some examples are next provided:

- ‘Jugend und Bildung’ is a not-for-profit organisation that produces pedagogic materials on political, social and economic topics. It is leading two initiatives, ‘Safety 1st’ [http://www.safety1st.de] – aimed at introducing 13-18 year-old students to the German social security system – and ‘Hoch im Kurs’ [http://www.hoch-im-kurs.de] – focused on money management, interest rates, stock markets, investment funds or social security. The resources provided include a magazine, worksheets, quizzes or additional materials to support teachers in working with these topics at classroom. Both initiatives have received the award Comenius-EduMedia-Auszeichnungen 2009 medal, which rewards the best didactic multimedia initiatives in Europe.

- Schul/Bank (Information service for schools and teachers, [http://www.schulbank.de]) is a programme developed for the classroom by the Association of German Banks. The goal is to make economics and finance more accessible to young people. Although it implements many initiatives related to economics, a section is devoted to finance, which deals with topics such as money, payment means, credit cards or saving. Short explanations on money-related topics are provided in the website (together with worksheets), and also booklets and publications are edited. One of these books, 'Rund ums Geld' ('All about money'), is defined in fact as a role-playing game to make young people aware of their savings/spending habits and enhance their relationship with money.

- Commerzbank has edited a booklet ("Kanon der finanziellen Allgemeinbildung") to promote financial awareness and debt prevention among young people. This booklet sets out the building blocks of basic financial awareness, which include the material needed (explanations, exercises, role games, activities) to work on these contents with students.

- The Landesmedienzentrum Baden-Württemberg has prepared an educational activity ('Help, my pocket money is gone again!' – ‘Hilfe, mein Taschengeld ist schon wieder weg!') to make scholars reflect on their consumption behaviour and the role of advertising. A pedagogical module can be downloaded that includes a questionnaire to ask classmates or friends about their consumption behaviour and provides indications on how to analyse the results and present them to the rest of the class.

- SCHUFA, German credit information agency, has created pedagogical modules which include excel sheets with exercises (budget sheet for a car, options to earn more or to save more), indications for teachers and short documents with background knowledge in order to

\textsuperscript{15} [http://www.insolvenzhilfe-prignitz.de/main.html](http://www.insolvenzhilfe-prignitz.de/main.html) (accessed 29/10/09)

\textsuperscript{16} see e.g. [http://www.cashless-muenchen.de/index.php?id=70](http://www.cashless-muenchen.de/index.php?id=70) (accessed 29/10/09)
help school children and teenagers recognise economic contexts and become responsible consumers.

- **Verbraucherzentrale Bundesverband**, the Federation of German Consumer Organisations, makes available a booklet ('Schuldenprävention - Eine Zukunftswerkstatt' / 'Debt prevention – A future workshop', [http://www.verbraucherbildung.de/projekt01/media/pdf/Schuldenpraevention.pdf](http://www.verbraucherbildung.de/projekt01/media/pdf/Schuldenpraevention.pdf)) that describes a range of activities to be run at classrooms in order to promote the competence of young people in dealing with money and prevent overindebtedness. Several tools are suggested – games, role playing, brainstorming, discussions, etc. – to elicit ideas from scholars and explore their consequences. A key point of this initiative is the exploration of own's wishes and future consequences of own's actions to reflect on how to behave in order to avoid overindebtedness.

Some initiatives are delivered through verbal mechanisms, such as talks provided at schools or youth centers, or combine these mechanisms with printed materials. For example:

- **Verbraucherzentrale Schleswig-Holstein**, the main consumer office of Schleswig-Holstein, organises 5-6 hour-long working sessions in schools ('Was kostet die Welt') to strengthen the financial capability of young people and help them avoid overindebtedness situations. This consumer office also provides teachers with the knowledge to enable them to give lessons on financial topics themselves.

- The Catholic association for social services in Dortmund (SKM) implements ‘Fit fürs Geld’ ('Fit for money', [http://www.fit-fuers-geld.de](http://www.fit-fuers-geld.de)), aimed at providing young people with information and tips on topics related to money and indebtedness. SKM staff gives talks in schools or youth institutions adapted to the needs of the audience, which are complemented with the explanations provided in the website (dealing with topics close to young people, such as handy-related issues) and the materials available for teachers.

- **Cashless Munich** ([http://www.cashless-muenchen.de](http://www.cashless-muenchen.de)) organises events in institutions of education or training, as well as in youth centers (activities include collagen, group work, role play, etc.), which are complemented with a website with explanations, tips and links to other resources on debt-related topics.

- The financial group of savings banks provides talks for clubs, associations, etc. on budgeting and financial planning, consumption and legal issues. These talks make part of an initiative called ‘Geld und Haushalt’ ('Money and budget', [http://www.geldundhaushalt.de](http://www.geldundhaushalt.de)) targeted at teenagers, young adults, people over 55 years old and adults in general to enhance their economic capability and their financial leeway. This initiative makes use of a wide range of delivery mechanisms, such as brochures, a budget analysis service or TV programmes and makes available for free budgeting software for the computer or the handy.

- The initiative ‘Bank und Jugend in Dialog’ brings together different entities and expertises to develop a skillful relationship of young people with money. The programme consists of 5 phases, which are delivered in different locations, such as KreditInstitut and the premises of debt advice services. Activities include a learning exchange with trainees from KreditInstitut, an information unit with debt advisors, a role playing game to simulate personal situations or the implementation of a "future workshop" (where the stumbling blocks of the relationship with money are identified, together with one’s wishes for the future and support means).

Other initiatives complement their website or face-to-face activities with observed media:

- For example, the initiative ‘Cashless Munich’ supplement their talks service with cultural projects, such as the edition of a 10-min film, an exhibition of photos related to debt, and a theater drama.

- The Jugendnetz portal is a joint action of the major youth employment associations in Baden-Württemberg land. It includes a finance site ([http://www.jungeseiten.de/finanzen.php](http://www.jungeseiten.de/finanzen.php)) addressed to young people that offers information and tips on finance-related topics that closely concern them. One peculiarity of
this initiative is the organisation of an exhibition of panels and multimedia contents prepared by young people on debt-related topics (‘Schulden frei. Zukunft frei’).

As in the case of the UK, the outcomes of the reviewed initiatives are not described, but the aims suggest that the final outcome might range from better ‘awareness’ and ‘understanding’ through to ‘confidence’.

### 3.2.3 Austria

Austria presents some similarities with Germany as to the objectives of financial capability initiatives and the delivery mechanisms used, although the number of schemes is not that high (but it still outnumbers the Spanish and French scheme supply). The major part of initiatives addresses scholars and young people and have a preventive aim: most schemes are triggered by the increasing indebtedness of families in Austria and the fear that the high level of consumption exhibited by youngsters together with their mounting use of overdrafting facilities is perceived as the normal behaviour and results in overindebtedness cases in the future. In fact, one out of every five people who currently makes use of the debt advice agencies is a young person under 25. Most initiatives who target young people seek to promote financial competence in order to ultimately reverse this dangerous trend.

As in Germany, there is no central institution that oversees fincap programmes, and debt advice organisations are definitely the main players in the provision of financial capability schemes (debt advice agencies are the lead organisation of the 80% of the initiatives identified in Austria addressing scholars or young adults).

We have observed that two main delivery mechanisms are used in Austria: Initiatives produce materials for teachers (which are usually available online) or rely on face-to-face workshops. We review next some examples of initiatives which make use of these two mechanisms.

A number of initiatives provide pedagogical modules or activities for teachers to raise students’ awareness on personal finance topics:

- One of the most well-known initiatives that make use of this delivery mechanism is ‘Schuldenkoffer’ (‘Debt suitcase’, [http://www.schuldenkoffer.at](http://www.schuldenkoffer.at)), provided by Klartext (the prevention body of the debt advice service of Upper Austria). This scheme provides teachers with materials on money, debt and consumption to work at classrooms. Exercises are available in the website that focus on money and consumption topics relevant for scholars (pocket money, clothes, handy, banking, advertising, etc.).

- The debt advice organisation Schuldner-hilfe has created a website called ‘Verbraucher Bildung’ (‘Consumer education’, [http://www.verbraucherbildung.at](http://www.verbraucherbildung.at)) to provide teachers with didactic materials revolving around the topics of money, consumption and debt. For each theme (critical consumption, moped, handy and internet, personal financial planning, budgeting, indebtedness and overindebtedness,…) a (downloadable) booklet is available with explanations and descriptions of the suggested exercises, together with all the necessary materials.

- The Austrian Federal Economic Chamber and the Austrian Savings Bank Group run the scheme ‘Arbeitsgemeinschaft Wirtschaft und Schule’ (‘We bring the economy into the classroom’, [http://aws.m-services.at](http://aws.m-services.at)) to provide teachers with materials on economics to work at classrooms and foster a positive attitude towards economy among students. To achieve this objective, pedagogical modules are published related to economic topics that comprise media packs (with games, films, etc.), documents on economic issues (with press releases, exercises, audio files, etc.), company profiles of successful entrepreneurs or
documents on the EU (statistics, press reports, etc.). In particular, some booklets are available that deal on how to deal with money (usual expenses of scholars, accounts, saving, credits and budgeting) and include different exercises.

Some initiatives are delivered through verbal mechanisms, such as workshops provided at schools or youth centers, or combine these mechanisms with printed materials:

- **Klartext**, the prevention body of the debt advice service of Upper Austria, organises a range of workshops targeting different groups. Some examples:
  - ‘Cash Flow’ organises workshops to support the financial education of young people who have left the compulsory school - who, according to studies, have a greater difficulty in managing their money and have a greater risk of becoming overindebted - and contribute to avoid future indebtedness situations. It is the only initiative that targets the group of young people with poor education in Austria, and focuses on the relationship with money, consumption and debt, and offers a personalised debt consultation session for those people who are already indebted.
  - ‘Schulprojekt: Schuldenfälle’ aims to make young people (14-20 year-old scholars) reflect on their own relationship with money and become aware of their financial situation, in order to improve their financial planning skills and avoid overindebtedness situations. Workshops are organised in schools that encompass 2 to 3 sessions and where the staff of Klartext get scholars reflect on their own financial situation, their relationship with money and consumption and become aware of the consequences of credits.
  - The ‘Multiplikatorenschulung’ (‘School for disseminators’) initiative follows the scheme ‘train-the-trainer’. It targets professionals who deal with children and young people (such as teachers or advisers for unemployed people) to train them in delivering financial information to their target group. In particular, they are taught to make use of the ‘schuldenkoffer’ resources (see above) within their lessons.

- Debt advice organisations of Vorarlberg and Upper Austria undertake two important initiatives that use the same name – ‘Finanzführerschein’ (‘financial driver licence’) – but which were designed and are run independently in their respective Land:
  - The IfS debt advice agency, the Austrian federal state of Vorarlberg, the chamber of commerce Vorarlberg and the AMS (Arbeitsmarktservice Vorarlberg) created the Finanzführerschein for the Vorarlberg Land, ‘Fit fürs Geld’ (‘Fit for money’, [http://www.fitfuersgeld.at](http://www.fitfuersgeld.at)). Three levels are available that target different age groups: S (11-12 years old), M (14-15 years old) and L (16-18 years old). To get the financial driver licence, a minimum of workshops need to be attended.
  - Motivated by the increasing number of young people who make use of debt advice services, the debt advice organisation Schuldner-hilfe runs the Finanzführerschein workshops in Upper Austria, ‘Fit fürs Geld, fit fürs Leben’ (‘Fit for money, fit for life’, [http://www.schuldner-hilfe.at](http://www.schuldner-hilfe.at)) to provide young people with basic training in financial matters in order to prevent future overindebtedness. Five modules have been created for three target groups (polytechnic schools, vocational schools, labor market and socio-educational measures). Three of these modules are workshops conducted by Schuldner-hilfe, and the remaining 2 are conceived as self-learning modules. To obtain the financial driver licence, a minimum of 3 modules need to be completed.

- The debt advice agency of Lower Austria has created the first peer-training provision scheme in Austria, ‘Ausbildung zum Finanz-Scout’ (‘Education with financial scouts’, [http://www.sbnoe.at](http://www.sbnoe.at)). A small number of participants (‘financial scouts’) follow an 8-step programme where they are trained in financial and consumption-related topics (bank
products, handy, consumption, budgeting) with the aim of passing on the knowledge acquired to their peers.

As in the case of the UK or Germany, the outcomes of the reviewed initiatives are not described, but the aims suggest that the final outcome might range from better ‘awareness’ and ‘understanding’ through to ‘confidence’.

### 3.2.4 Spain

In Spain, most initiatives address the general public, or those people with some interest in improving their knowledge on finance. Providers usually are financial institutions, universities or governments. Although there is no initiative specifically addressed to young adults, there are two schemes for students in the secondary school:

- **Caixa Terrassa** undertakes the initiative ‘Aprèn a administrar els teus diners’ (‘Learn to manage your money’) for 13-16 year-old scholars. The programme is divided into two phases: (1) A didactic workbook to work at classrooms; (2) A role-playing game at Caixa Terrassa. The set of the game presents to students a typical city street with different shops and services. This includes an office of Caixa Terrassa where scholars can conduct transactions.

- In summer 2009, the Catalan autonomous government has undertaken a pilot project: a group of 30 teachers of secondary schools have been selected to take part in a five-day course, where they have been trained in how to teach financial education to their students. This is the first phase of a more ambitious plan, that intends to introduce financial education contents in the curriculum of Catalan secondary school. In fact, a parallel aim of the pilot course was to measure the degree of acceptance of introducing a subject on financial education in the secondary school curriculum.

Currently, the Bank of Spain and CNMV are setting in motion a new, ambitious plan which is inspired by FSA’s initiatives in the UK. The ‘Financial education plan 2008-2012’ is still in planning phase (and, in fact, it has already suffered some delays), but the guidelines were made available in a document published in 2008[^17]. The Plan addresses all population groups. However, some segments with special needs will be identified and targeted through specific channels, and some of these segments are of interest to us:

- One of these identified segments is the student population, which will be targeted through the education system. This group includes not only the secondary school pupils, but also the university students. In cooperation with national and regional education authorities and teacher associations, the Bank of Spain and CNMV will elaborate materials, train teachers, provide standby support and introduce financial education contents in the curricula.

- The Plan also takes into account that some young people are outside the education system. For this reason, a different segment ‘Others’ has been defined that includes (among others) these young people and considers alternative methods to target them such as workshops, internet or specific publications.

- These specific channels will be used in parallel to the general channels used to reach the general citizens: press, magazines, radio, TV and internet.

3.2.5 France

As a general impression, French initiatives are more focused than Spanish ones. Although there are some sites that address the general public, the rest address a more specific target group, such as public workers (‘Epargne Retraite’ - [http://www.epargneretraite.org](http://www.epargneretraite.org)), people preparing for retirement (‘Epargne Retraite’, ‘GIP Info Retraite’ - [http://www.info-retraite.fr](http://www.info-retraite.fr)) or teenagers (‘Les banques, ma banque et moi’; ‘Ctaconso.fr’). Providers usually are financial institutions or consumer associations.

Here we will focus on the initiatives that target young people and young adults. There are three key initiatives in France: ‘La finance pour tous’, ‘Les clés de la banque’, and ‘Finances & Pédagogie’. Curiously, the online portal of all these three initiatives include different sites that address specific groups, one of which is young people:

- The French banking group founded ‘Finances & Pédagogie’ (‘Finance & Education’), which provides direct training but also cooperates with manifold organisations which have access to student community. It builds on different delivery mechanisms: lectures on specific topics (budgeting, banks, insurances, etc.), provision of an educational kit for schools (downloadable online), a budgeting tool (downloadable online) or online short videos.

- The objective of ‘Les clés de la banque’ (‘Keys to banking’), undertaken by the French Banking Federation (professional organisation that represents all of the banks installed in France), is to have people get acquainted with banking and money matters in order to learn to better use the banking mechanisms. The young adults site ([http://www.lesclesdelabanque.com/Web/JA/ContentJA.nsf](http://www.lesclesdelabanque.com/Web/JA/ContentJA.nsf)) provides practical information on what to do when facing different life events. Situations are grouped under 3 major headlines: ‘under 18 years old’, ‘students’, ‘start of working life’. Information covers topics such as banking accounts for people under 18, going to study abroad, banking conditions for youngsters or the first wage. Moreover, the site provides information on all those jobs related to banking and finance (fiches on the jobs, videos on some jobs and formation programs to attain each job). Finally, a game is provided to learn some basics about budgeting and banking (described in section 3.3).

- The objective of ‘La finance pour tous’ (‘Finance skills for all’), undertaken by IEFP (Institute for Public Financial Education, independent organism in charge of improving financial education of French people), is to provide French citizens with the knowledge that allows them to better manage their money, understand and select financial products and cope with the everyday financial issues. The young adults site ([http://www.lafinancepourtous.com/-Jeunes-.html](http://www.lafinancepourtous.com/-Jeunes-.html)) deals with the following topics: bank accounts, credit cards, financing of education, financing of other projects (car, housing, enterprise, trip, family), work, living with one's partner and social security. Contents are provided online, grouped under the above topics or events, and text is complemented with videos, quizzes to test finance-related knowledge, and budget templates.

Apart from these major initiatives, in France there is another financial capability project addressed specifically to young adults (16-25 years old): ‘16-25 ans - Comment gérer son budget sans déraper’ (‘16-25 years old - How to manage your budget without skidding’), undertaken by 5 French consumer associations and 12 European consumer associations, and funded by the European Commission. This initiative aims to teach some budgeting procedures to young adults. Information and advice is grouped under the following topics: Budgeting, credit, payment means, financial autonomy, housing, energy, computers, health, handy, transportation, trips, and sport. Also a CD-Rom is distributed that includes a budgeting simulator and a pedagogical booklet to work alone or with an trainer.
Finally, we can also mention the workshops for young people organised by Cresus (Chambre RÈgionale du SUrendettement Social), a foundation created to fight against overindebtedness and banking exclusion. Although the objective of Cresus is to help overindebted people by advising them and looking for solutions to their financial, social, legal and psychological difficulties, they also organise workshops for young people where they teach how to manage the budget, consumption rules and some knowledge on financial security.

3.3 Financial Education Initiatives Using Technology Enhanced Learning

Although most initiatives employ some type of technology, the level of sophistication is not high. The web is used widely – both as a means of accessing printed and electronic materials, for presenting information and as a way of engaging users. It is also common that the website includes a set of simulators that allow users to calculate e.g. the monthly payments or the APR of a loan or mortgage, quizzes to test one’s knowledge on different topics or online videos that complement text explanations. Some initiatives also provide users with budgeting tools (online, for the computer or for the handy) to allow people to elaborate their domestic budget and better manage their finances. It appears that technology is generally used as an alternative delivery mechanism of the contents some institutions already provided by other means (e.g. with printed booklets).

Taking into account the objectives of the xDelia project in the financial capability field – designing and implementing an intervention package mainly consisting of games – it is of special interest to review in detail those initiatives that build on games as a tool to enhance the financial capability of users. We next review the educative online games on financial capability identified in the surveyed countries.

3.3.1 The United Kingdom

The extent to which technology has been employed by financial educators appears to vary across the countries surveyed. All countries have web access to resources, but more interactive provision is largely limited to providers within the UK. It is for this reason that whilst we have only been able to briefly summarise the provision in the other countries, it has been possible to analyse the provision in the UK to explore common themes, as seen below.

Different delivery, same story

There are a great number of financial education initiatives in the UK that utilise technology in some way or other. However, it appears that the trend is to migrate existing paper based or classroom approaches to learning onto the internet or CD, or to replicate the old materials when designing technological or interactive initiatives. This is hinted at by Fluch, who comments “the latest technology has made it possible to present useful messages in a lively and appealing way” (Fluch 2007). This does not indicate a change in the financial education content, or recognition that technology could be used for complementary purposes, but rather that technology might be a more appealing medium by which to get the original message across. This is consistent with the recommendations of McMeeking et al (2002), who noted that paper-based resources may be less effective than using a variety of delivery mechanisms, including ones that included an element of entertainment, such as video (McMeeking, Smith et al. 2002).

Encouraging use
The use of technology may, as Fluch suggested, make the delivery of financial education more appealing, but it is not necessarily the case that appealing packaging will be enough to persuade educators or learners to use the materials within. The uptake of financial education resources also depends on the extent to which they are engaging and appropriate for the learner, and the subject matter covered.

The technological approaches to financial education in the UK that we have reviewed included various ways of engaging the learner. We discussed above the use of ‘teachable moments’ to reach people at the right time. Of particular note, the BBC has a financial education website that was developed with input from a number of financial capability experts and makes full use of the idea of developing financial capability skills during particular life events, such as buying a car or moving house. Other organisations have games that are designed around specific situations that are familiar to the target audience, such as budgeting for a holiday or planning a party, but these do not seem to be designed to harness the teachable moment, only the topics of interest.

Another way in which engagement is encouraged is through the use of games. A wide range of financial education games are available. But the variations in designs suggests that it is not enough to provide the option of learning through playing games; the game itself has to be appealing to the learner. The approaches to designing financial education games can be summarised as follows – note that there is some overlap in the games that we reviewed (in other words some combine two or more of the approaches listed):

- Adaptation of existing games such as Tetris to test knowledge
- Adaptation of other delivery formats into a game – such as quizzes
- Adopting humour in a variety of ways
- Creating visually appealing games that use high quality graphics; or, conversely, have a ‘handmade’ look to them, such as using line drawings
- Using a narrator, or sound in some other way to reduce the need for long instructions.

Meeting the needs of learners

It seems that the games are designed to meet two different needs. The first is the need to test or indicate levels of knowledge. Some games are part of a teaching package that provides learners with new terminology and aims to explain financial concepts; others test knowledge without making clear where that knowledge should be acquired. In both cases, quizzes and puzzles provide learners with some indication of the extent of their knowledge.

The second need that has been addressed by games is the need to understand the consequences of one’s financial knowledge, behaviour or attitudes. As mentioned above, several of the games that we reviewed provide the player with a visual indication of the consequences of making good or bad financial decisions. Some also incorporate a more emotional element to make the player feel good or bad about the consequences of their knowledge and decisions, by using a narrator who chastises or praises them as necessary (see, for example the MoneMoneyMoney game from the Citizenship Foundation).

Qualitative research suggests that consumers are aware that financial capability improves with experience, and that people learned from their own mistakes (Kempson, Collard et al. 2005). Atkinson also noted that outside of the school environment, learners do not revise the lessons they learn, and so benefit from repetition (Atkinson 2005). Some of the existing games may help young people to become familiar with financial decision making in a safe environment, if they are to repeat them many times. However, the websites and information packs that we reviewed did not tell the

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learner that repetition may be an important element in gaining maximum benefit from the game. It is impossible to know whether this is implicit in the production of these games, or whether the potential value added from playing games several times has been overlooked in the financial education arena.

3.3.2 Germany

In Germany we have identified two initiatives based on an online game. In fact, it is surprising the lack of sophistication in the use of technology in the German financial initiatives, given the large amount of schemes and the effort that so many entities are putting on it. For example, Germany is a far activer player than France and implements many more projects, but the number of games identified in the survey undertaken are the same in the two countries. Perhaps it is due to the fact that many schemes are delivered by small organisations who do not have enough resources to implement this kind of technology.

Was was kostet – ‘Was was kostet’ (http://www.was-was-kostet.de) aims to provide 16-19 year-old people with basic principles for reliable financial planning and budgeting. It is based on a game where a 19-year-old character, Andy, moves out of the family home and must plan his monthly expenses. Information is provided on his incomes, and a list of fixed cost categories (rent, electricity, handy, etc.) is given to users, who must estimate the amount of each cost. Afterwards, the real figures are provided so that users can compare how precise their estimations were. This game is in fact the online version of the slides that were created by the work group of debt and insolvency advisors in Berlin to talk about expenses and budgeting in schools.

Taschengeldgangster – The initiative ‘Taschengeldgangster’ (http://www.taschengeldgangster.de), provided by the Federation of German Consumer Organisations, aims to promote a better control of earnings and spendings among children. Training is provided with a game, where the user gets 20€ each month and must manage them to achieve his savings objectives at the end of the selected period (1, 2 or 3 months). Along the month (time goes by by throwing a dice), one can gain money or lose it, and can choose whether to participate in several activities (e.g. go to the disco) and make use of alternative resources (e.g. ask parents for money) to get additional money. The user can play alone, against the machine or against another player.
3.3.3 Austria

In Austria we have identified two initiatives include an online game as part of their activities.

Freiheit auf 4 Rädern – Klartext includes in its website a link to a kind of online game called ‘Freiheit auf 4 Rädern’ (‘Freedom on 4 wheels’, http://www.klartext.at/Rallye.html) which provides a. 'rally through the financial jungle'. The user is presented with the following situation: he has just obtained the driving licence and wants to buy a car, but he has no savings. Each page presents the user with several options (e.g. buy the car in cash, lease it, steal it, or ask for a credit), and when one of these is chosen, the user is conducted to a new page where feedback is provided on the option selected, the consequences are described and new decisions need to be made. The 'rally' finishes when the user buys the car or makes a much unreasonable selection (e.g. stealing the car, what sends the user directly to jail).
Trapper Johann Junior - In 2005 the Chamber of Labour and the IfS debt advice agency launched an information campaign that focused on debt-related issues. The figurehead of the campaign was a character called Trapper Johann, who warned young people of debt-traps by means of theatre plays in pedestrian zones. The campaign finished in 2005, but the Chamber of Labour has designed an online game called "Trapper Johann Junior" (http://www.akbasics.at/game/flash/game.swf) that deals with consumer rights. This game consists of three levels, each of which combines a conventional arcade – where the player must take Trapper Johann along the city streets and try to avoid the obstacles (when too many obstacles are hit, the game is over) – with a quiz on consumer rights at the end of each level. This game is also a competition (currently open until 6th Dec) where several prizes can be won (ranging from vouchers to cinema tickets). Too take part in the competition, all the quiz questions must be correctly answered.
3.3.4 Spain

In Spain, currently no initiative makes use of the game technology. One of the first measures implemented in the Financial Education Plan 2008-2012 fostered by the Bank of Spain and CNMV will be the creation of a financial education portal. Although it was planned to have it running by the end of 2008, it is not available yet, and will be presented at the end of this year 2009. This portal will not only include contents on financial education and simulators, but also a game zone with competitions and a financial Trivial Pursuit.

3.3.5 France

In France we have identified two initiatives based on an online game.

Les clés de la banque – A game called 'Décrochez les clés' ("Get the keys") is provided in the young adult site of the initiative ‘Les clés de la banque’ (http://jeu.lesclesdelabanque.fr). It resembles a board game. By clicking on a die, a pawn advances. Explanations (which tend to be quite clear and pedagogical) are provided and in some squares, the player must do an activity or test this knowledge, and then an explanation on the correct results is provided. Four levels must be completed, and at the end of each one the player obtains a key, and a summary of the contents of that level is provided:

- 1st level - budget management. Contents focus on distinguishing between resources and expenses, and between certain and uncertain budget entries.
- 2nd level - relationship with banks. Contents focus on the role of banks, how to choose a bank, how to open an account, working of an account, how to transfer an account to another bank.
- 3rd level - banks in daily life. Contents focus on payment means, how to use cash, cheques and credit cards, banks transfers and bank orders, ‘ticking’ of expenses to know real account balance, overdrafts.
- 4th level – credit: What amount is reasonable to borrow, how to choose a loan, interest rates, APR

![Screenshot of game 'Décrochez les clés' (France)](image)

**Figure 3.6 – Screenshot of game 'Décrochez les clés' (France)**

**La finance pour tous** - A game is included in the children site of the scheme ‘La finance pour tous’ ([http://enfants.lafinancepourtous.com/console.html](http://enfants.lafinancepourtous.com/console.html)). By playing three different games (a Memory with finance-related cards, Hangman with finance-related terms, and a Tetris-like game), the user can gain points (‘glings’), which he can spend (buying products in a shop) or save (depositing them in a bank). An avatar is created, and the products bought in the shop are complements for the character.
In general, the initiatives identified and reviewed in the different countries only have an informative aim, and do not consider the psychological and behavioural aspects involved in financial capability. At most, some initiatives – e.g. all those which provide budgeting tools – also aim to teach good financial habits to young people (or adults in general) – which could border on behavioural modification – so that they are able to responsibly plan their finances in the future and avoid overindebtedness situations.

Only a handful of initiatives take into account the psychological or behavioural front when dealing with financial capability. We next describe the initiatives of this kind identified in the different countries.

3.4.1 The United Kingdom

Whichever way one looks at financial capability it is clear that it involves not just knowledge, but also different aspects of human personality, mood, behaviour, skills, and so on. Regrettably, finance education hasn’t paid much attention so far to the influence of psychological, social, and environmental aspects and circumstances, and not much is understood how these affect levels of financial capability.
However, as indicated in the quotes below, the early development work undertaken by PFRC on behalf of the FSA did identify several behavioural aspects of financial capability, suggesting that there has always been an underlying awareness of these factors.

Most people, however, admitted that, when they were planning to buy a product, they did not shop around as assiduously as they felt they should. The main reason for this seemed to be that people found it difficult to compare products. They found the products themselves complex and were not at all sure what criteria they should use to compare one against another. In this context, there was a widespread lack of understanding of interest rates in general, and APR in particular. Faced with this, many people seemed either simply to choose the lowest-priced products, or they chose products offered by big firms on the grounds that they felt that the firms were more likely to be trustworthy.

(Kempson, Collard et al. 2005)

Interestingly, the last sentence of the quote below also indicates that consumers recognised that they did not necessarily need to be better educated to become more financially capable if the rules were changed to ensure that contracts were easy to understand.

Choice and comparison were made more difficult by the fact that people perceived that the products’ terms and conditions were usually set out in small print. People usually did not read these terms and conditions, although they felt they should. This was felt to be particularly critical when buying things like equity-based products that carried a degree of risk. Awareness of such risks appeared to be low, particularly among young people and those with low incomes. Most people said that they would like to see the terms and conditions expressed in simple, clear, easily understood language, and printed with a type size that was easy to read.

(Kempson, Collard et al. 2005)

The first quote above indicates that choice can lead to procrastination, and that heuristics were commonly used when making complex decisions. The second quote suggests that consumers may be aware of ways of making it easier for them to become financially capable, without entailing any additional learning on their part.

Despite these early findings, the FSA in the UK has not made psychological or behavioural aspects of personal finance or financial capability a priority, although there are signs that they are beginning to recognise the importance of understanding the behavioural/psychological literature. In 2008 they commissioned a review of the behavioural economics literature to inform the financial capability strategy (de Meza, Irlenbusch et al. 2008). The authors of this review stated that “Providing financial education to schoolchildren is pointless unless their adult behaviour changes.” The FSA does not appear to have responded to this point, although they have accepted the difficulties in ‘changing actual behaviour’.

De Meza and colleagues clearly believe that the variations in the levels of financial capability amongst the UK population are better explained by psychological than by knowledge or information differences. This conclusion could also be drawn from the results of the analysis of the UK Baseline Survey of Financial Capability, which showed that knowledge was not highly correlated with capability in terms of managing money, planning ahead or choosing products (Atkinson, McKay et al. 2006). The message here is clear: educational initiatives which fail to take cognitive and emotional aspects in everyday financial decision making into account are bound to lead to mixed results at best.
3.4.2 Germany

Most initiatives in Germany only pursue to provide people with tips and information in order to improve their financial decisions. Just a couple of projects take explicitly into account the psychological aspects involved in financial decisions:

- Apart from providing knowledge on financial issues, the initiative ‘Bank und Jugend in Dialog’ insists on the related emotional aspects (rational and irrational aspects of money, emotional aspects of savings and overindebtedness, satisfaction of needs, consumption as compensation) and the instruments to develop a skilful relationship with money (self-management and responsibility, limits of behavioural control, instruments of behavioural control). One of the activities undertaken by young people taking part in this programme entails reflecting on their attitudes, wishes and behaviour when dealing with money to become more financially capable.
- The initiative ‘Schuldenprävention - Eine Zukunftswerkstatt’ (‘Debt prevention – A future workshop’) explicitly takes into account the modification of people's attitudes with respect to indebtedness. It pursues to change some attitudes of scholars (anxiety of possible future debt spirals, gain confidence by planning their future) by exploring their wishes and the future consequences of their actions, and think up of strategies to achieve their objectives.

3.4.3 Austria

The initiatives identified and reviewed in Spain only have an informative aim, and do not consider explicitly the psychological and behavioural aspects involved in financial capability.

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4 Benefits and Limitations of Existing Provision

In 2008 the FSA in the UK commissioned two literature reviews. The first was designed to put the existing evidence into a framework that was consistent with the FSA’s financial capability strategy (Atkinson 2008). The second considered how the lessons from behavioural economics could be applied to financial capability (de Meza, Irlenbusch et al. 2008). Both of these reviews commented on the lack of robust evaluations on which to base any judgements about the effectiveness of existing initiatives. However, there are tensions between the two reports. The second assumes that the financial capability strategy is designed to impart knowledge, and that it is the expected that this increased knowledge will improve behaviour, as indicated in the following quote:

Two links must hold for conventional financial education to be effective. Education must improve relevant knowledge and understanding (financial literacy) and better knowledge must change behaviour.

Such a model of financial education does not reflect the range of provision discussed by Atkinson, or identified in this paper. Whilst it is certainly true that much of the education on offer includes knowledge based elements, the focus in a large proportion of the provision in the UK and elsewhere is very clearly on practical steps such as budgeting and saving to improve capability in terms of making ends meet. Indeed Atkinson notes that:

The majority of evaluations that have identified measurable outcomes appear to have focused on savings behaviour, but it is not clear whether this is the easiest behaviour to change or the easiest to measure.

The review by Atkinson indicates that few school-based financial capability initiatives have been evaluated, and that evaluations have generally looked for increased knowledge rather than behaviour change. It reports the finding of one study that examined the relationship between school-based financial education and savings behaviour in adulthood and found a positive effect for adults whose own parents had not been frugal (Bernheim, Garrett et al. 2000). Atkinson identified a handful of evaluations focusing on young people out of school, including one with a control group that indicated positive behaviour change amongst students that opted to take a short online course on managing their credit commitments (Gartner and Todd 2005).

Whilst the limited evidence suggests that some modest improvements in levels of financial capability are possible given the right training, de Meza and colleagues provide stark warnings about the possible difficulties with expecting education to change behaviour. In stating that “What people choose to know and what they do with their knowledge may primarily depend on their intrinsic psychological attributes” they reflected the findings of focus groups convened during the development stages of the BSFC that a person could be knowledgeable about financial matters without actually behaving in a capable way (Kempson, Collard et al. 2005). Given this common concern from very different quarters, it is clearly important to understand the arguments put forward by de Meza and others that indicate the potential limitations of changing behaviour through education.

Barriers to improving financial capability

The OECD had already identified some of the barriers to improving financial literacy in their book of the same title in 2005 (Organisation for Economic Co-operation and Development 2005). They recognised that the behavioural economics literature suggested that it was not just a lack of
knowledge or skills that prevented individuals from appearing capable. For example, in the chapter entitled 'Investment/retirement Saving and Financial Education' they state:

Improved financial education is the appropriate response if lack of financial information or skills is the reason for low levels of saving. However, financial education is only one factor influencing financial behaviour. There have been an increasing number of studies in behavioural economics that relate financial and savings behaviour to psychological factors.

After going on to summarise some of this research they note that “These findings suggest that in order to meet the needs of those consumers who are “non-planners”, financial education programmes will need to emphasise simpler decisions, less information, reduced complexity, and fewer choices.”

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